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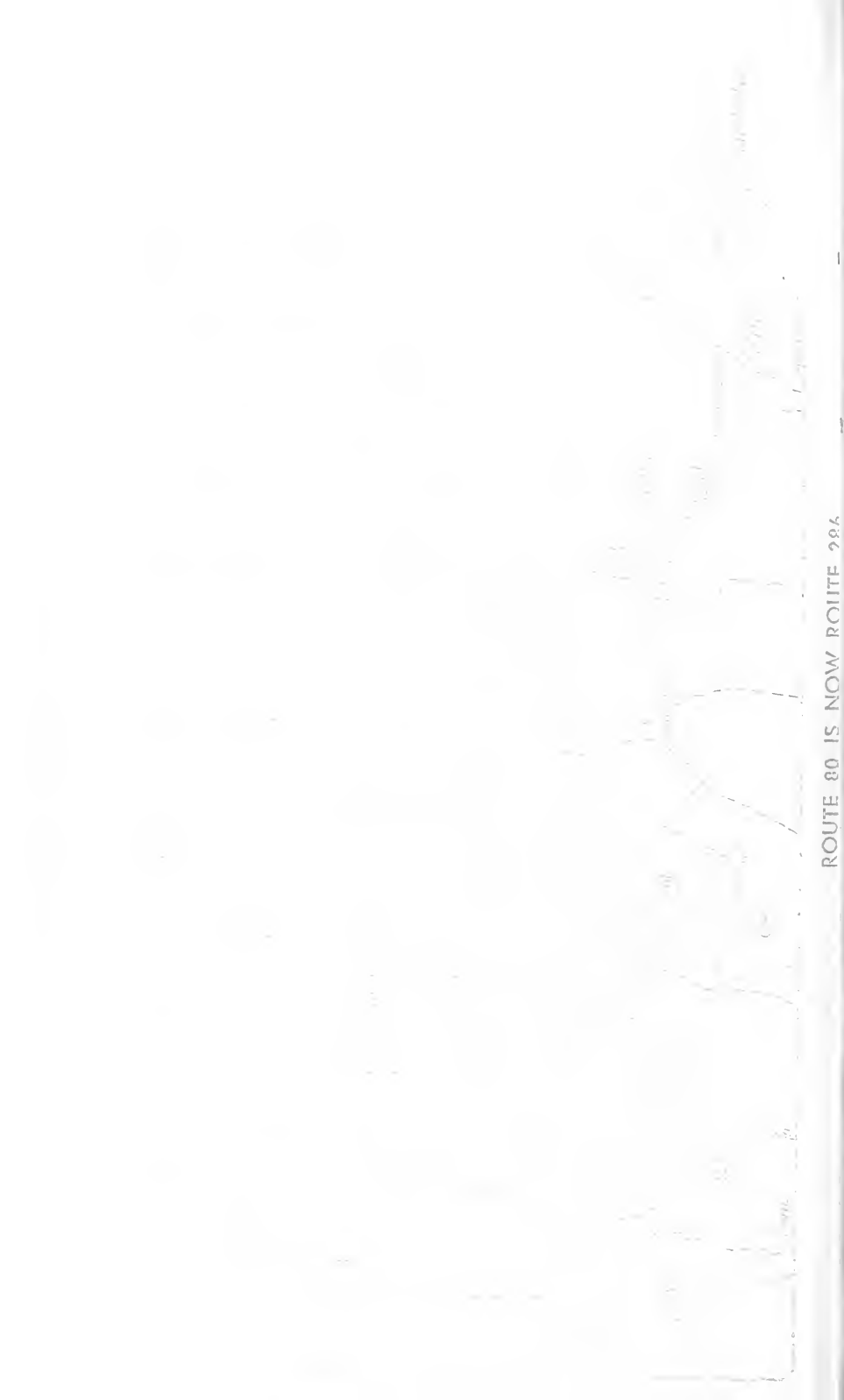












# INDIANA COLLEGE BULLETIN

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VOLUME 70

FEBRUARY 1963-1964

Number 1

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STATE COLLEGE  
INDIANA, PENNSYLVANIA

Catalogue Number  
1963 - 1964



THIS COLLEGE IS ACCREDITED BY THE NATIONAL COUNCIL FOR  
ACCREDITATION OF TEACHER EDUCATION AND THE MIDDLE STATES  
ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS

Issued Annually in February by the Trustees of the Indiana State  
College, Indiana, Pennsylvania. Entered as second-class matter,  
June 30, 1913, at the Post Office in Indiana, Pennsylvania, under  
Act of Congress, August 24, 1912.

# THE INDIANA STATE COLLEGE CALENDAR

## 1963-64

### THE SUMMER SESSIONS

#### Pre-Session

Classes Begin ..... June 10  
 Session Ends ..... June 28

#### Main Session

Classes Begin ..... July 1  
 Session Ends ..... Aug. 9

#### Post Session

Classes Begin ..... Aug. 12  
 Session Ends ..... Aug. 30

#### First Semester

Registration and Orientation of Freshmen (Details will be mailed) ..... Wed., Sept. 4  
 Registration of Upperclassmen ..... Thurs., Fri., Sat., Sept. 5, 6, 7  
 Classes Begin with First Period ..... Mon., Sept. 9  
 Thanksgiving Recess Begins at the Close of Classes ..... Tues., Nov. 26  
 Thanksgiving Recess Ends at 8:00 A. M. ..... Mon., Dec. 2  
 Christmas Recess Begins at the Close of Classes ..... Wed., Dec. 18  
 Christmas Recess Ends at 8:00 A. M. ..... Thurs., Jan. 2  
 First Semester Ends at the Close of Final Examinations ..... Wed., Jan. 15  
 Last Meeting of Saturday Campus Classes ..... Sat., Jan. 11

#### Second Semester

Registration ..... Mon., Tues., Wed., Jan. 20, 21, 22  
 Classes Begin at 8:00 A. M. ..... Thurs., Jan. 23  
 Spring-Easter Recess Begins at the Close of Classes ..... Sat., Mar. 21  
 Spring-Easter Recess Ends at 8:00 A. M. ..... Tues., Mar. 31  
 Second Semester Ends at the Close of Final Examinations ..... Wed., May 20  
 Alumni Day ..... Sat., May 23  
 Baccalaureate and Commencement Services ..... Sun., May 24

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ROBERT H. SAYLOR	Education-Psychology
A.B., Juniata College; A.M., D.Ed., Pennsylvania State University	
GEORGE K. SEACRIST	English-Speech
B.S., Indiana State College; M.Litt., University of Pittsburgh	
ROBERT C. SEELHORST	Art
B.S., State College, Indiana, Pennsylvania; Ed.M., Ed.D., Pennsylvania State University	
CATHERINE P. SHAFFER	English-Speech
A.B., Pennsylvania State University; A.M., Gettysburg College	
EDWARD D. SHAFFER	Education-Psychology
B.S., M.Ed., University of Pittsburgh	
LEWIS H. SHAFFER	Health and Physical Education
B.S., Ohio University; Ed.M., Pennsylvania State University	
MILDRED N. SHANK	Keith School
B.S., State College, Indiana, Pennsylvania; M.A., Teachers College, Columbia University	
WALTER T. SHEA	Social Science
B.A., Morris Harvey College; M.A., University of Wisconsin	
ELWOOD SHEEDER	Dean of Men
B.S., State College, Indiana, Pennsylvania; M.Ed., University of Pittsburgh	
ARTHUR G. SHIELDS	Science
B.S., State College, Slippery Rock, Pennsylvania; M.Litt., University of Pittsburgh; Ed.D., Pennsylvania State University	
CLEL T. SILVEY	Music
A.B., University of Texas; A.M., Columbia University; M.Mus., Northwestern University School of Music; Ph.D., Peabody College for Teachers; Dec.Ch. (Music Diploma) E'cole d'Art, France	
FREDERICK W. SINFELT	English-Speech
A.B., A.M., Pennsylvania State University	



JAMES M. SKINNER	Military Science
B.S., Ohio State University	
ROBERT F. SIENKER	Art
B.S., State College, Indiana, Pa.; A.M., Columbia University	
BERT A. SMITH	Social Science
A.B., University of Nebraska; M.A., University of Missouri	
FANNIE DEE SMITH	Home Economics
B.S., Murray State College; M.S., University of Tennessee	
HELENA M. SMITH	English-Speech
B.S., State College, Indiana, Pennsylvania; M.Ed., Ph.D., Pennsylvania State University	
SAMUEL G. SMITH	Health and Physical Education
B.S., Waynesburg College; Ed.M., University of Pittsburgh	
WILLIAM R. SMITH	Mathematics
B.S., Pennsylvania State University; M.Ed., Harvard University	
MARIE E. SNEAD	Library
B.S., Geneva College, Syracuse University; A.M.L.S., University of Michigan	
DOROTHY M. SNYDER	Education-Psychology
B.S., State College, Indiana, Pennsylvania; A.M., Ed.D., Teachers College, Columbia University	
DWIGHT SOLLBERGER	Chairman, Science
B.S., State College, Slippery Rock, Pennsylvania; Ph.D., Cornell University	
GEORGE L. SPINELLI	Education-Psychology
B.S., M.Ed., University of Pittsburgh	
MADAM ANDREE MARIE SRABIAN	Foreign Language
Baccalauréat és Lettres, La Sorbonne	
MARTIN L. STAPLETON	Science
B.S., State College, Kutztown, Pennsylvania; M.A., Lehigh University	
ROGER GERALD STERN	English-Speech
A.B., University of Pittsburgh; M.A., Columbia University	
ELIZABETH D. STEWART	Music
B.M., American Conservatory, Chicago, Illinois; M.F.A., Ohio University	
MARGARET O. STEWART	English-Speech
A.B., University of Kentucky; A.M., Ph.D., University of Illinois	
LAWRENCE C. STITT	Music
B.S., A.M., New York University	
JAMES K. STONER	Business
B.S., State College, Indiana, Pennsylvania; A.M., Ed.D., University of Pittsburgh	
GEORGE A. W. STOFFER, JR.	Dean, School of Education
B.S., State College, Shippensburg, Pennsylvania; Ed.M., Ed.D., University of Pittsburgh	
RICHARD M. STRAWCUTTER	Science
B.S., State College, Indiana, Pennsylvania; A.M., Columbia University	
I. LEONARD STRIGHT	Dean of Graduate Studies, Mathematics
A.B., A.M., Allegheny College; Ph.D., Western Reserve University	
CRAIG G. SWAUGER	English-Speech
B.S., State College, Indiana, Pennsylvania; M.Litt., Ed.D., University of Pittsburgh	
HAROLD W. THOMAS	Business
B.S., Grove City College, Ed.M., University of Pittsburgh	
RAYMOND THOMAS	English-Speech
B.S., Indiana State College; M.A., Columbia University	
ROBERT N. THOMAS	Geography
B.S., Indiana State College; M.A., University of Pittsburgh	
ALLEN R. TRUBITT	Music
Mus.Ed., M.Mus.Ed., Roosevelt University	

JOSEP VIDAL-LLECHA	Foreign Languages
B.S., B.A., Instituto Nacional de Reus, Spain; LL.B., University of Barcelona, Spain; Ph.D., University of Madrid, Spain	
EUPHEMIA NESBITT WADDELL ✓	Assistant Librarian
A.B., College of Wooster; M.S., Library School, University of Illinois	
PAUL M. WADDELL	Science
A.B., Bethany College; A.M., Cornell University	
RICHARD F. WAECHTER	Science
B.S., Bloomsburg State College; M.S., Bucknell University	
ALBERT J. WAHL	Social Science
B.S., M.S., Lafayette College; Ed.D., Temple University	
FLORENCE WALLACE	Social Science
A.B., Wellesley College; A.M., Columbia University	
JOANN E. WALTHOUR	Keith School
B.S., Chatham College; Ed.M., University of Pittsburgh	
ROBERT O. WARREN	Keith School
B.S., State College, Indiana, Pennsylvania; M.Litt., University of Pittsburgh	
JOHN G. WATTA	English-Speech
B.S., State College, Indiana, Pennsylvania; M.Litt., University of Pittsburgh	
CHARLES E. WEBER	Geography
B.A., Montclair State College; M.A., Ed.D., Columbia University	
DON A. WILKINSON	Military Science
B.S., Utah State University	
JAMES C. WILSON	Education-Psychology
B.S., Clarion State College; M.A., Duquesne University	
MRS. ANNA T. WINK	Mathematics
B.A., Gettysburg; M.S., Pennsylvania State University	
DAVID C. WINSLOW	Geography
A.B., University of Oklahoma; A.M., University of Nebraska; Ph.D., Clark University	
EDWARD G. WOLFE ✓	Library
B.Ed., Duquesne University; M.Litt., University of Pittsburgh; M.S.L.S., Drexel Institute	
ROBERT L. WOODARD	Science
B.S., Syracuse University; M.S., State University of New York, Geneseo, New York	
MELVIN R. WOODARD	Mathematics
B.S., Mansfield State College; M.A., University of Illinois	
MILDRED R. YOUNG	Foreign Languages
A.B., Pennsylvania State University; A.M., University of Pittsburgh	
MAURICE M. ZACUR	Keith School
B.S., State College, Indiana, Pennsylvania; M.Ed., University of Pittsburgh	
CYRIL J. ZENISEK	Science
B.S., M.S., Ohio State University	
PATSY A. ZITELLI	Science
A.B., M.Ed., University of Pittsburgh	

## EMERITI

JOHN E. DAVIS	Director of Teacher Training, Placement, Keith School
A.B., Pennsylvania State University; A.M., Ph.D., University of Pittsburgh	
JOY E. MAHACHEK	Chairman, Mathematics
	Coordinator of Secondary Education Departments
A.B., State College of Iowa; A.M., Columbia University; Ph.D., University of Pittsburgh	
HELEN C. MERRIMAN	Home Economics
B.S., Purdue University; A.M., Columbia University	
GEORGE P. MILLER	Chairman, Health and Physical Education
B.S., A.M., Columbia University	
NORAH E. ZINK	Geography
B.S., University of Utah; A.M., Columbia University; Ph.D., University of Chicago	

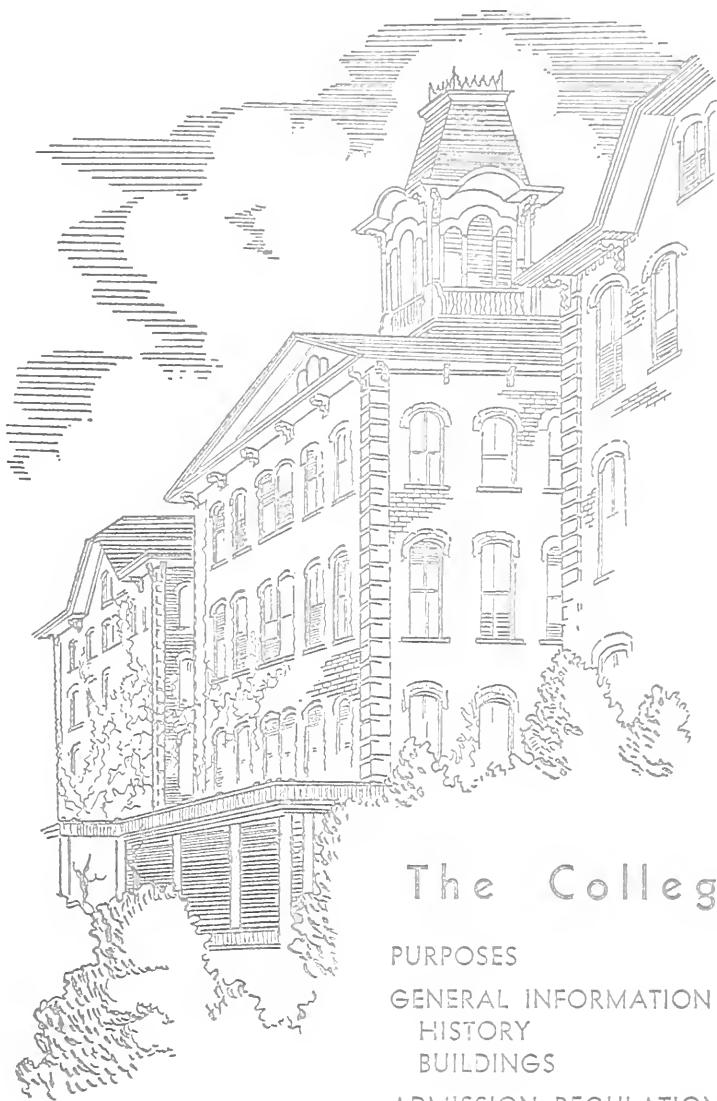
## SUPERVISING TEACHERS IN CO-OPERATING SCHOOLS

- A'Hearn, Neloos — Butler  
 Aikey, Robert — Johnstown  
 Almes, Thomas — Altoona  
 Altman, James — Norwin  
 Altomari, Paul — Westmoreland County  
 Amann, Alfred — Jeannette  
 Apel, Dale — New Kensington  
 Arabia, Anthony J. — New Kensington  
 Armstrong, John — New Kensington  
 Ashworth, Edna — Indiana  
 Baginski, Sandra — Monroeville  
 Bainbridge, Myrtle — Greensburg  
 Balest, Florence — Monroeville  
 Balla, Alexander J. — Monroeville  
 Barkhymer, Jessie T. — Johnstown  
 Barkley, Ruth — Lower Burrell  
 Bash, Bernardine J. — Hempfield  
 Basil, Frank — Punxsutawney  
 Batiste, John — New Kensington  
 Beck, Janet — Westmoreland County  
 Bell, Madeline — Commodore  
 Bergsten, Carolyn — Butler  
 Bernardi, Arthur A. — Butler  
 Betar, Walter — Altoona  
 Bianca, Arlene — Homer City  
 Binkey, Marjorie — Homer City  
 Bisignani, Mary Kay — Hempfield  
 Bistline, Darwin H. — Altoona  
 Bitonti, Salvatore — Hempfield  
 Bloomfield, Kathryn A. — Altoona  
 Boblick, John — Marion Center  
 Bohn, Russell Kenneth — Altoona  
 Boothman, Isabelle — Greensburg  
 Bowers, Edith B. — Punxsutawney  
 Brailler, William — Westmont  
 Brenneman, Harold — Avonworth  
 Breon, Paul — Greensburg  
 Brobst, Roger — Penn Hills  
 Brooks, Edgar J. — Altoona  
 Brougher, Glenn — Ferndale  
 Brown, Charlotte — Indiana  
 Brown, Gladys — Indiana  
 Brunelli, Julia — Greensburg  
 Bucar, Paul — Irwin  
 Buchanan, Kathryn — Indiana  
 Buchanan, William G. — Commodore  
 Burnett, Thomas — New Kensington  
 Butterbaugh, Beryl — Altoona  
 Calabrese, Eugene — Westmoreland County  
 Calvo, Delfino — Derry  
 Carosella, S. Anthony — Johnstown  
 Caruso, Paul J. — Ford City  
 Caruso, Victor — Ford City  
 Cipollini, John — Homer City  
 Claypool, Charlotte — Monroeville  
 Clements, Alice S. — Indiana  
 Cole, Shirley C. — Greensburg  
 Covode, Nora Grace — Geistown  
 Cotterell, Alice — Monroeville  
 Cramer, Virginia — Penn Hills  
 Cree, Delores T. — Westover  
 Creps, Jeanne — Indiana  
 Crisafulli, Margaret — Davidsville  
 Crist, Zella E. — Altoona  
 Cross, William — Butler  
 Cummings, Patrick — Hollidaysburg  
 Daniels, James — Penns Manor  
 Davis, James — Ford City  
 Davis, Sheldon K. — Indiana  
 Deemer, Geraldine — Wilkinsburg  
 DeGaetano, Arveta — Indiana  
 Delia, Jean — New Kensington  
 Doerr, Robert — Altoona  
 Donaldson, Ralph — Greensburg  
 Dick, Roger — Hollidaysburg  
 Dietz, Henry — Ford City  
 DiTullio, Josephine — Monroeville  
 Dombart, Donald — Butler  
 Doney, John Clifford — Punxsutawney  
 Donnellan, Walter — Monroeville  
 Dreikorn, Edward — Johnstown  
 Drenner, Donald W. — Davidsville  
 Edder, Margaret — Indiana  
 Edwards, Robert G. — Lower Burrell  
 Erickson, Paul — Monroeville  
 Esper, Thomas — Monroeville  
 Falls, Donald J. — Monroeville  
 Farabaugh, Richard — Indiana  
 Fassett, Natalie — Homer City  
 Ferner, Emma — Johnstown  
 Fetterman, Gerald R. — Punxsutawney  
 Fetterman, William — Penns Manor  
 Fisher, Betty — Greensburg  
 Fitzmaurice, Vincent — New Kensington  
 Fleming, Dorothy S. — Indiana  
 Folino, Alba — Lower Burrell  
 Fox, Cecil — Hollidaysburg  
 Fox, Roberta — Murrys ville

- Furlong, Ann — Armstrong County  
Furrer, Ethelyn C. — Altoona  
Furry, Mary — Johnstown (Garfield)  
Gallo, John E. — Marion Center  
Garrity, James Patrick — Greensburg  
Gates, E. Jean — Altoona  
Gecowets, Mary Lee — Monroeville  
George, James — Indiana  
Gerhart, Wade — Greensburg  
Gershman, Thelma — Indiana  
Giles, Leah — Commodore  
Gillman, Ralph E. — Johnstown  
Ginocchi, Anthony — Lower Burrell  
Glassford, Helen — Indiana  
Good, Sherman E. — Derry  
Graf, Carl E. — Altoona  
Green, Elizabeth — Indiana  
Green, S. Elizabeth — Geistown  
Groer, Walter F. — Penn Hills  
Grove, Harold — Indiana  
Guiney, Sue — Lower Burrell  
Gulich, John — Geistown  
Hall, Katherine A. — Monroeville  
Hamilton, Robert W. — Murrys ville  
Harmon, Daniel — Homer City  
Heaton, Mary Ellen — Indiana  
Heckler, Vieve Wonder — Windber  
Hecceg, John — New Kensington  
Herge, Mary — Wilkinsburg  
Hershberger, Nyle — Ferndale  
Hess, James W. — Portage  
Hicks, Loretta — East Brady  
Hildebrand, Helen — Ebensburg  
Hile, Joan — Penns Manor  
Hill, Homer — Johnstown  
Hill, Marybelle — Indiana  
Hoffman, Wilbert — Altoona  
Holstein, William — Indiana  
Horrell, Paul — Derry  
Houk, Sara — Indiana  
Hoy, James — Purchase Line  
Huber, Joseph — Geistown  
Hunter, Betty Stewart — Indiana  
Hunter, Sheldon — Westmont  
Idzkowski, Veva — Westmont  
Ifft, Edith — Butler  
Ifft, John — Butler  
Igo, Robert — Ferndale  
Ingersoll, Ralph — Monroeville  
Ingraham, Mary — Irwin  
Ivansic, Rudolph — Johnstown  
Jacobus, Esther — Lower Burrell  
Jacoby, Morna — Indiana  
Jamison, Clair — Homer City  
Jerko, Beatrice — Commodore  
Johns, Beverly — Geistown  
Johns, Martin — Altoona  
Johnson, Brian — Marion Center  
Johnston, C. Waldo — Indiana  
Johnston, Murray — Monroeville  
Jones, Kathleen — Penn Hills  
Jones, Martha H. — Ebensburg  
Joseph, John A. — Aliquippa  
Joseph, Lambert — Indiana  
Kasperik, Sophia — Derry  
Kaufman, John — Westmont  
Keefer, M. Bernice — Monroeville  
Kelley, Ethel — Turtle Creek  
Kelley, John Kermit — Blairsville  
Kendall, Elsie — Blairsville  
Kepple, Helen G. — Johnstown  
Kerr, Jane D. — Butler  
Kerr, Marjorie — Johnstown  
King, Marie — Ligonier  
Kinkead, Ralph Victor — Greensburg  
Kline, Robert — Indiana  
Kocerka, George I. — Johnstown  
Kordes, Clarence — New Kensington  
Kososki, Walter S. — Davidsville  
Kowallis, Gerald — Penns Manor  
Kropinak, Stephen — Kittanning  
Kunkle, Jean — Indiana  
Kuntz, Barbara — Punxsutawney  
Laird, David H. — Indiana  
Lang, Thomas — Commodore  
Lantz, Eugene L. — Altoona  
Laughlin, Regis — Monroeville  
Leffler, Forrest L. — Johnstown  
Lewis, Betty — Indiana  
Lewis, Vera H. — Monroeville  
Lingafelt, Donald P. — Altoona  
Lockard, Raymond — Penns Manor  
Long, Kathryn A. — Johnstown  
Long, Thalia — Indiana  
Loveless, Richard — Ebensburg  
Lubold, Martha A. — Commodore  
Luchsinger, Jane — Blairsville  
Lynch, Robert E. — Johnstown  
McConnell, Sally — Punxsutawney  
McCormick, Helen — Greensburg  
McCoy, Ronald — Armagh  
McCullough, LaRue Helen — Indiana

- McGregor, Dorothy — Altoona  
McJunkin, Wilma — Indiana  
McKelvey, James G. — Indiana  
McMullen, Ronald — Westover  
McQuilkin, Theodore — Indiana  
McVitty, Claire — Indiana  
Mack, Frances A. — Norwin  
Macro, Carol — Homer City  
Mahan, Donald — Commodore  
Mahoney, Nora B. — Altoona  
Mancuso, Judith — Homer City  
Malletz, Alex — Penn Hills  
Mannion, Robert J. — Johnstown  
Maquilken, William — Geistown  
Markle, Ruby — Derry  
Marshall, George A. — Butler  
Martin, Edminston — Monroeville  
Mastrocola, Frank L. — Altoona  
Matisko, John — New Kensington  
Mayer, Nova Ruth — Windber  
Mazzotta, Dolores — Armstrong County  
Meck, Richard — Hollidaysburg  
Meneely, Clyde R. — Punxsutawney  
Menk, George — New Kensington  
Metzler, Lois P. — Altoona  
Miller, Emery — Hempfield  
Miller, Richard E. — Marion Center  
Miller, Ruth — Blairsville  
Minder, John W. — Hempfield  
Mish, Edward — Blairsville  
Mitchell, Melvin Scott — Punxsutawney  
Molinengo, Alice — Punxsutawney  
Molter, Oliver — Greensburg  
Montgomery, Katherine — Greensburg  
Monti, John C. — Altoona  
Mooney, Pat — Penn Hills  
Mooney, Walter W. — New Kensington  
Moore, Mary E. — Butler  
Munro, Mary Ann — Monroeville  
Nealer, Edward A. — Marion Center  
Neely, Donald — Hollidaysburg  
Nemec, Margaret — Monroeville  
Nichol, Evelyn — Indiana  
Nix, James M. — Indiana  
Oakes, Robert — Penns Manor  
O'Leary, Robert — Monroeville  
Oliver, Frank G. — New Kensington  
Orledge, Wallace — Johnstown  
Owen, Elvina — Johnstown  
Owens, Lucille — Jeannette  
Palmer, Bain — Marion Center  
Paone, Anthony — Westmont  
Park, Jean M. — Greensburg  
Paul, Edity — Johnstown  
Pifer, Edna Mary — Punxsutawney  
Perchick, John — Irwin  
Pino, Bruno — Penns Manor  
Pollock, George Raymond — Indiana  
Post, Nancy — Monroeville  
Puckey, Marian — Altoona  
Puff, Margaret Catheline — Butler  
Rager, Leora — Ferndale  
Rairigh, Doris — Indiana  
Ramsey, Arthur C. — Altoona  
Rankin, James Rogers — Indiana  
Rankin, Ronald — Johnstown  
Recupero, Mary — Indiana  
Reichart, Lillian — Ford City  
Rhodes, Izetta — Johnstown  
Ringer, Alice — Monroeville  
Ritzert, Gertrude — Butler  
Roberts, Florence E. — New Kensington  
Rosella, Geraldine — Westmoreland County  
Rowley, John — Homer City  
Ruland, Dorothy — Indiana  
Rung, Wilbert — Altoona  
Rupert, Hubert — Ford City  
Rutter, Gilbert — Hempfield  
Sakaluk, Walter — Monroeville  
Salay, John — Davidsville  
Saunders, Anna J. — Monroeville  
Sauserman, Irene — Altoona  
Schall, Mildred Fennell — Ford City  
Schell, Raymond I. — Indiana  
Schrock, Dorothy N. — Commodore  
Schuckers, Rita — Westmoreland County  
Schultz, Michael — Monroeville  
Servinsky, Stanley Charles — Indiana  
Shaffer, Blanche — Davidsville  
Shaffer, Frank — Indiana  
Shafley, Joseph E. — Monroeville  
Shane, Joseph — Indiana  
Shaw, Francis — Punxsutawney  
Shearer, Walter — New Kensington  
Shick, William — Punxsutawney  
Shields, Matthew — Hempfield  
Short, Ralph — Hempfield  
Shuma, Edward — Hempfield  
Shuster, Stephen — Greensburg  
Simmons, Robert — Hempfield  
Simpson, Clifford J. — Indiana  
Slack, Robert — Monroeville

- Slezak, Walter — Greensburg  
Slosky, Kenneth — New Kensington  
Smith, Virginia — Monroeville  
Sofish, Joan — Monroeville  
Sowers, Harold L. — Ford City  
St. Clair, Frederick — Armagh  
Stapleton, Walter — Indiana  
Stathis, Georgia — Derry  
Stevenson, Richard — Westmont  
Stewart, Joyce — Monroeville  
Stewart, Madge B. — Kittanning  
Stewart, Marion H. — Butler  
Stewart, Nancy — Lower Burrell  
Stiffler, Robert — Penn Hills  
Stockdale, Mildred — Punxsutawney  
Stormer, William C. — Ebensburg  
Stokes, Minerva — Lower Burrell  
Stright, Virginia — Indiana  
Stroud, Marian — Ford City  
Stuchell, William — Punxsutawney  
Sturale, Ann — Penn Hills  
Swauger, Evelyn — Indiana  
Sybinsky, Andrew — Youngwood  
Thomas, Eugene H. — Indiana  
Thompson, Elizabeth — New Kensington  
Thompson, Marian McMurray — Indiana  
Unverzagt, Angella — Altoona  
Van Scoyoc, Richard — Altoona  
Varrato, Ralph — Lower Burrell  
Vassilaros, Constantine G. — Monroeville  
Vesely, Donna — Westmoreland County  
Voigt, Ruth — Monroeville  
Vollero, Frank, Jr. — Penn Hills  
Vorlage, Ethel — New Kensington  
Waddell, Mildred — Indiana  
Walker, Gertrude — Indiana  
Walker, Norma E. — Marion Center  
Walter, Clair H. — New Kensington  
Wareham, C. Roscoe — Altoona  
Waryck, William V. — Hollidaysburg  
Waugaman, Sara — Hempfield  
Weaver, Marion — Ford City  
Weber, Madge — Ford City  
Weber, William C. — Derry  
Wellen, Lily Maxine — Derry  
West, Martha — Homer City  
Westrick, Louise — Johnstown  
Wetzel, Jean — Elders Ridge  
White, Madolyn — Greensburg  
White, Marilyn Keener — Greensburg  
Weigel, Ralph — Johnstown  
Wilden, Helen Lucille — Indiana  
Wille, Gladys F. — Penns Manor  
Wilson, Chester A. — Elderton  
Wilson, Ray — Altoona  
Wilson, Thomas — Punxsutawney  
Wingard, Marlin — Windber  
Winslow, Mary — Indiana  
Wood, Dorothy — Punxsutawney  
Woods, Janet A. — Monroeville  
Woomer, Dale W. — Altoona  
Wright, Fernanda — Murrys ville  
Yates, Albert — Westmoreland County  
Yoder, Harold — Altoona  
Young, Elsie T. — Indiana  
Young, Margaret — Greensburg  
Zedick, John — Indiana  
Zeliff, Carol — Hempfield



# The College

PURPOSES

GENERAL INFORMATION

HISTORY

BUILDINGS

ADMISSION REGULATIONS

FEES, DEPOSITS,  
REPAYMENTS

SCHOLARSHIPS AND LOANS

REGULATIONS OF  
THE COLLEGE

SPECIAL SERVICES

STUDENT ORGANIZATIONS

## PURPOSES OF THE COLLEGE

The primary function of this college is to prepare every student intellectually, physically, spiritually, socially and professionally for adult life which will bring all of the rewards which come from the liberal education which marks institutions of higher learning. The college recognizes that every person, whether he prepares himself to teach or to pursue some other profession or vocation, needs a profound understanding of life values which comes from broad experiences in all areas of learning.

**Intellectually.** Every student who attends Indiana is challenged intellectually by a competent staff in those understandings and appreciations which are so essential to the educated person. In acquiring competence in language considerable emphasis is placed upon the importance of reading, writing, speaking, and listening in new comprehensive communication courses in which each student engages. To give the student a rich background of his heritage, he studies the cultures of the world, the history of mankind, his music, his art, and his literature. Every student is expected to know something of the physical world in which he lives and gains an insight into this area of learning through his courses in the physical sciences and the biological sciences. Recognizing that appreciations as well as understandings are essential to the liberally educated person, all students spend some time in courses which deal with the arts, especially in the graphic arts and in music.

**Physically.** The physical development of students, although recognized by the Greeks as essential, was for many years considered of little importance in institutions of higher education. Fortunately today, the mental and physical health of all college students has been given greater emphasis. At Indiana an attempt has been made to provide as many opportunities as possible for men students to participate in some kind of varsity athletics. This part of the physical development program has not been extended, however, at the expense of a broad physical activity program in which hundreds of men and women of the college participate. Athletics have been rightfully considered as a part of the program for physical development and not as a means of using the special talents of a relatively few students to provide advertising of questionable value for the college.

**Spiritually.** The State College at Indiana not only provides for the intellectual and physical development of a student, but also emphasizes those spiritual values so essential to a well-adjusted personality. Here one will find students who are enrolled in church-affiliated clubs in the town and who are active in the Student Christian Association, a co-educational religious organization. One will find weekly and monthly meetings of church groups, morning watches at times of religious holidays, monthly vesper services in which students participate and religious exercises conducted by students at the college convocations. One will find an active participation in a religion-in-life week at which time religious leaders of all faiths meet with students



in large groups and in small discussion conferences to consider spiritual life problems. Indeed, spiritual growth of students at a state institution need not be neglected and it is not at Indiana.

**Socially.** No less important than the intellectual and physical development of a student is his personal and social growth. At Indiana there are on the campus more than eighty student organizations through which student participation provides an opportunity for personal and social development. The primary function of all these organizations is to assure for every student a chance to develop to the best of his ability desirable personal and social traits.

Emphasis is placed at the college upon student participation in the administration of college affairs. Most men and women students, through dormitory councils, make and enforce their own rules and regulations with respect to their living conditions. The student government of the college, through the student council, recommends rules and regulations for the administration of student affairs. All social activities of the college are carried out through the Student Cooperative Association which levies and collects the activity fee and prepares and administers its own budget. This Cooperative Association finances the college publications, the cultural life programs, the student bookstore, student union and other services directly related to the students' social life.

At the present time the college is developing more fully its student personnel program. Beginning with an orientation program in the freshman year, which seeks to induct students into college life and social life, this student personnel service seeks to assist every student throughout his college career. Better coordination is now being sought among the various services of the college which are related to student welfare such as the instructional service, testing service, health service, clinical service, and others. An advisory program, which provides a faculty adviser for each student, guides effectively the personal and social growth of all students.

## THE COLLEGE, PRESENT AND PAST

The State College at Indiana is a state-owned and state-controlled institution for higher education. It is a multi-purpose institution. The college is comprised of three schools: The School of Liberal Arts, The School of Education, and the Graduate School.

The college is an approved and fully accredited member of the Middle States Association of Colleges and Secondary Schools and of the American Association of Colleges for Teacher Education, the two acknowledged accrediting agencies for institutions in this region. The fact that this college is a member of these two organizations is of immediate personal importance to the individual student in two ways: first, the student may transfer college credits from one approved institution to another without loss in case he finds it necessary to change colleges; and second, the student who is a graduate of an approved institution is eligible for a better teaching position.

Throughout the entire history of the College at Indiana, great emphasis has been placed on maintaining high academic standards and providing adequate facilities conducive to individual and group growth. The present record and reputation enjoyed by the College have evolved during an eighty-five year history. Growing out of the need for a teacher training institution in western Pennsylvania, the General Assembly passed an act in the legislative session of 1871 granting aid to the establishment of a normal school in the ninth district at Indiana.

The first building was completed and opened for students on May 17, 1875. This building, named John Sutton Hall in honor of the first president of the Board of Trustees, is still in use and in excellent condition. The steady growth of the school has caused a continuous expansion in its building program, which includes a men's dormitory, Walter Murray Whitmyre Hall, first occupied in September, 1952, a new Leonard Hall, a classroom building first used in September, 1954, Corrine Menk Wahr Hall, a women's dormitory opened in May, 1960, J. Nicholas Langham Hall, a men's dormitory opened in May, 1960, Matthew J. Walsh Hall, a science and mathematics classroom building, opened in May, 1960, Cogswell Hall, a music building, opened in May, 1960, Rhodes R. Stabley Library, opened in May, 1961, Agnes Sligh Turnbull Hall, a women's dormitory opened in January, 1963, Mabel Waller Mack Hall, a women's dormitory, opened the summer of 1963, and Hope Stewart Hall, a women's dormitory opened the summer of 1963.

Many new buildings have followed that edifice of tradition — John Sutton Hall. The size and natural beauty of the college campus offer ample opportunity for recreation in an environment conducive to personal enjoyment. The main campus of the college originally 23 acres with one building is now composed of 62 acres on which are located fifteen principal halls, twenty-five other buildings, and three athletic fields. The College Lodge, located a few miles from Indiana, is surrounded by 100 acres of wooded hillside. This not only offers opportunity for nature study by science and conservation classes but also provides an ideal setting for numerous social activities of the college.

In April, 1920, entire control and ownership of the school passed to the Commonwealth of Pennsylvania. In May, 1927, by authority of the General Assembly, the State Normal School became a college with the right to grant degrees. The name was then changed to the State Teachers College at Indiana, Pennsylvania. In 1960, the name was changed to State College at Indiana, Pennsylvania, deleting the word "Teachers."

Since the founding of the college in 1875, Indiana has graduated approximately 20,000 students, and since the college became a degree-conferring institution in 1927, about 10,000 degrees have been granted. Many of the graduates are organized into a strong Alumni Association with units active in many sections of Pennsylvania and also in New York, Michigan, and the District of Columbia. The Alumni

Association cooperates with the college in many projects designed to better the college and for the welfare of the students.

Located in Indiana Borough, Indiana County seat, in the foothills of the Alleghenies at an elevation of about 1,300 feet, the Indiana College is ideally situated for cleanliness and beauty. The College is easily accessible by automobile over excellent state highway routes coming from all sections of the state. These leading routes are route 422 east and west, route 286 northeast and southwest, and route 119 north and south. Bus passenger services operate on frequent schedules to and from Indiana and all nearby cities and towns including Pittsburgh, Altoona, Johnstown, Butler, Punxsutawney, Kittanning, DuBois, Ridgway, New Castle and others. Indiana is also served by bus connections with the main line of the Pennsylvania Railroad at Johnstown and Pittsburgh.

## GROUNDS AND BUILDINGS

The campus of the college at Indiana is frequently described as one of the most beautiful small college campuses in the country. The campus proper located in the central section of the Indiana community, contains about sixty-two acres of land twenty-three of which were in the original area. New athletic playing areas were recently developed in the area known as the Glassworks immediately southwest of the main campus. In the center of the campus is the historic oak grove about which are grouped the main buildings, forming three sides of a quadrangle. The rest of the campus is made beautiful by a careful distribution of shrubs, flowers and vines artistically arranged.

John Sutton Hall is the largest building. In addition to housing more than 600 women students, it contains the post office, parlors and recreation rooms, the President's apartment, an excellent laundry and ironing room, a shampoo room, and sorority rooms.

Thomas Sutton Hall, erected in 1903, an addition to John Sutton Hall, contains the kitchen, dining rooms, and dietitian's office on the first floor, and housing for fifty-two women students on the second and third floors.

Clark Hall, named in honor of Justice Silas M. Clark, a former member of the Board of Trustees, was erected in 1906 on the site of a building burned that year. It was used as a men's dormitory until 1924; from 1924 until 1960 it served as a dormitory for women. It has now been reconverted into an administration building containing offices for the president, the deans, graduate studies, public relations, business, and other administrative offices. A coffee shop and student lounge are on the ground floor.

Wilson Hall was erected in 1893 as the model school and was named for A. W. Wilson, third president of the Board of Trustees. From 1941 until 1960, the building served as the library for the college. Since 1960 Wilson Hall has been occupied by the Department of Social Studies.

The Rhodes R. Stabley Library named for the late Dr. Rhodes R. Stabley, chairman of the English-speech department from 1941 to 1958, was completed in the spring of 1961. The three story building will eventually house 125,000 books and provides study room for about 400 students.

An instructional program in the use of library tools and reference books is carried on by the staff to develop needed skills in library use. The well-organized general holdings of 80,000 volumes are enhanced by the reference collection, 350 current magazines, extensive files of bound and microfilmed magazines and newspapers, state and federal documents, pamphlets, and curriculum materials.

Most materials are available by the "open stack" system which encourages the habit of using books freely. Students having access to all library materials can broaden their education through browsing, as well as widen their interests through intellectual reading.

Comfortable reading areas have been arranged in the library. Exhibits and displays are frequently changed as a means of arousing interest and supplying information.

Leonard Hall, named for Jane E. Leonard, for many years preceptress of Indiana Normal School, was erected in 1903 as a recitation building, and was destroyed by fire on April 14, 1952. A new Leonard Hall was constructed by the General State Authority and opened in September, 1954. The new building contains classrooms, laboratories, faculty offices, and the Indiana Film Library.

David J. Waller Gymnasium was completed in 1928. It contains two gymnasiums, a fine swimming pool, and all the equipment that goes to make up an efficient physical-education plant.

Jean R. McElhaney Hall, completed in 1931 houses the art, business education, and home economics departments, one entire floor being given to each department. This building, both in appearance and in equipment for efficient work, is recognized as one of the finest educational buildings in the state.

John S. Fisher Auditorium, completed in 1939, has a seating capacity of 1600, and a well-equipped stage large enough to accommodate a cast of 100 people. Its design facilitates the presentation of intimate drama to a small group or super-spectacles to capacity audiences. Light, air, and sound may all be mechanically controlled by the director of any presentation.

John A. H. Keith School, completed in 1939, provides for a program of instruction from kindergarten through tenth grade, primarily for the purposes of observation and demonstration. The secondary program provides for courses in the following fields: academic, commercial, home economics, music, fine and industrial arts and physical education. Other facilities include a library, a gymnasium, and a fine demonstration room with seats for 160 observers, which is a unique

feature of the building. The school also contains the offices of the Director of Placement and the Director of Professional Laboratory Experiences.

**Special Education Building.** This building, completed in 1961, is a wing of John A. H. Keith School and houses the speech, reading, and psychological clinics and a classroom.

**Elkin Hall** and six acres of land were bought in 1947. The home has been renovated and houses the foreign language department.

**Military Hall**, a war-surplus structure erected in 1947, is located on Grant Street. It contains offices, storage rooms and two classrooms for the Reserve Officers Training Corps.

The College Lodge is an important location in the instructional and recreational life of the college. Owned by students and faculty, the 100 acres of wooded hillside with its rustic lodge and three shelter houses, not only offers opportunity for nature study by science and conservation classes, but is in frequent demand for picnics, meetings, and winter sports.

**Whitmyre Hall**, named for Walter M. Whitmyre, who retired as dean of men in 1954 after serving for thirty-seven years, was completed in 1952. The dormitory houses 210 men students, recreational rooms, music practice rooms, dean of men's office, the dean of men's apartment, and the Whitmyre Dining Hall.

**Langham Hall**, named for Judge J. Nicholas Langham, Indiana County Judge for twenty years and a member of the Board of Trustees of the College for fourteen years, was completed in 1960. This dormitory houses 185 men students, a large recreation area, lounges, study rooms, laundry room, and the office of the assistant dean of men.

The new Student Union, which was completed in the fall of 1960 houses a co-educational recreation center, the cooperative bookstore and offices, some student publication offices, and other recreational facilities for students. This building is owned and operated through the Student Union Association Inc. and the Student Co-operative Association Inc. Expansion of the Student Union Building to double its size was underway the winter of 1962-63, and will be completed by the fall of 1963.

**Cogswell Hall**, named in honor of Mr. and Mrs. Hamlin E. Cogswell, former music department chairman and his wife — a teacher who composed the Alma Mater, is located on South Eleventh Street. The building, housing music and art classrooms, practice rooms and studios, and a recital hall, was completed in 1960.

**Wahr Hall**, named for Corinne Menk Wahr of the class of 1916 who left a large sum of money to the college for scholarship purposes, is located immediately adjacent to Langham Hall. This dormitory, housing 152 women students, recreation room and lounges, and quarters for an assistant dean of women, was completed in 1960.

Walsh Hall, named for Dr. Matthew J. Walsh, longtime professor and dean of instruction at Indiana, is located to the immediate east of Wilson Hall. This building, housing science and mathematics classrooms for 200 students as well as faculty offices, lecture demonstration areas, a museum, and seminar rooms, was completed in 1960.

The Greenhouse of the College is used as an experimental and demonstration laboratory by the Science Department in the conducting of biology courses.

The College Infirmary is located behind Cogswell Hall off S. 11th St. on Papermill Avenue.

Louise Stanley and Ellen Richards Houses, located at the rear of Cogswell Hall off S. 11th St., are used by the seniors of the home economics department for participating in practical home management problems based on actual family needs and expenditures.

Home Economics School Lunchroom is located on the ground floor of Thomas Sutton Hall. Juniors enrolled in School Lunchroom Management I prepare and serve lunches to Keith School pupils, the College faculty and commuting students.

Memorial Athletic Field, developed in 1949 as a memorial to students and alumni who served their country in World War II, is located south of the main campus off Grant Street. This field, seating five thousand persons, is the site of intercollegiate football games.

The New Athletic Field consisting of about 20 acres is being developed off S. 11th and Glass Streets. Already developed there are a new baseball diamond, six all weather tennis courts, and other facilities including a track. The George P. Miller Football Stadium was completed in October, 1962, and a new two million dollar field house is to be located in this area.

Agnes Sligh Turnbull Hall, Mabel Waller Mack Hall and Hope Stewart Hall, three new dormitories for a total of 600 or more women students have been constructed on the former Memorial Athletic Field. Turnbull Hall was occupied in January, 1963; the other two halls will be occupied the summer and fall of 1963.

The winter of 1962-63 a new dormitory for men and a new dormitory for women are being constructed near the Elkin Property; a new home economics classroom building is being constructed on the southeast section of east campus.

Scheduled for early construction is a new dining hall to accommodate a 1,000 students at a time. This dining hall will be located on the southwest corner of Grant and Eleventh Streets.

## HOW TO APPLY FOR ADMISSION

1. Application papers and college catalog are available upon request to the Registrar's Office, Indiana State College, Indiana, Pennsylvania.
2. The college will accept application papers from any applicant who has completed the junior year of high school.
3. All applicants are required to take the College Entrance Examination Board Scholastic Aptitude Test. Arrangements for these tests should be made through the high school principal or guidance counselor.
4. Results of College Board tests taken during the junior year in high school will be accepted if scores meet minimum requirements for admission. Applicants will be notified of the action taken by the admissions committee.
5. Applicants for admission who have attended other colleges or universities will follow the same general admission requirements but must in addition file an official transcript of their college record and a statement of honorable dismissal.
6. No action on any application will be taken by the admissions committee until all the necessary steps for admission have been completed and all required information is in the hands of the committee.
7. All admission information should be mailed to the Director of Admissions' Office, Indiana State College, Indiana, Pennsylvania. The following must be in the hands of the admissions committee before any action can be taken on any application:
  1. Application blank (blue form) — with advance deposit fee of \$25.00 in the form of check or money order made payable to the Commonwealth of Pennsylvania.
  2. High school transcript (white form).
  3. Official transcript of CEEB scores from the Educational Testing Service, Princeton, New Jersey.
  4. For transfer students the official transcript and statement of honorable dismissal.
8. All applicants who are approved for admission to Indiana State College will be required to report to the campus on a designated day for orientation, interviewing, and testing. One of the purposes of this day is to verify the student's choice of his major department and curriculum. The applicant will also be required to bring to the campus a completed medical examination blank (yellow form) in order to complete his application. The medical examination blank will be sent to every applicant at the time his admission is confirmed.

9. Quotas for admission to the various departments of the college are largely determined by available physical facilities. For the past ten years the college has been operating at a peak enrollment level, and quotas for admission are frequently filled as long as ten months ahead of the registration date. Women students are required to live in college dormitories so that quotas for women students usually close earlier than for men. As soon as dormitory facilities are filled, quotas for women students must close. In order to be sure of consideration, the following are suggested as the latest dates by which applications must be filed in order to be sure of consideration for the fall term:

Boarding Women Students before January 15

Boarding Men Students before March 1

Day Students — Men and Women — before April 1.

These dates are for applicants who are applying for admission to the college for the fall term in September. Frequently the college must wait for other supporting data required to complete the application, but the dates shown above refer to the receipt of the personnel application (blue form) from the applicant.

## ADMISSION POLICY

All applicants to Indiana State College must meet the following admission requirements:

1. Scholarship as evidenced by graduation from a secondary school.
2. Ability to do college work as determined by the Scholastic Aptitude Test of the College Entrance Examination Board.
3. Ability to succeed in the student's chosen major field may be determined by an aptitude test.
4. Satisfactory character and personality traits.
5. Satisfactory health as determined by medical examinations.

These general admission requirements are established by a faculty admissions committee and are administered by the Director of Admissions. The admissions committee evaluates all applications in the light of the criteria listed above and either approves or rejects applicants on this basis. The committee will notify all applicants of action taken on applications at the earliest possible date dependent on the receipt of the necessary information required for final processing of the application.

College Entrance Examination Board Scores. All applicants to Indiana State College are required to take College Entrance Examination Board tests. Arrangements for these examinations should be made through your high school guidance counselor or by writing directly to the Educational Testing Service, Box 592, Princeton, New



Jersey. Applicants are encouraged to take these examinations during their junior year in high school. High ranking on these tests in the junior year may qualify an applicant for early admission to the college. All applicants whether approved for early admission or not are urged to repeat the College Board tests during their senior year in high school.

**Advanced Standing.** The following regulations govern admission of students with advanced standing.

1. A student desiring to transfer from another college must submit an official transcript of the work taken at his former college together with a statement of honorable dismissal.
2. Credit will be given for acceptable courses pursued in accredited collegiate institutions in which the student has made a grade above the lowest passing grade in the institution in which the work was done. Where grades are marked on a percentage basis, work graded five per cent above the minimum passing grade will be accepted.
3. All students who are candidates for a degree shall be required to arrange a program of studies approved by the Dean of the school to which he is applying for admission. Any student desiring to pursue any part of this program at a different institution will be required to secure, in advance, the approval of such courses from the Dean of the school in which he is enrolled.

No credit can be given for correspondence work toward certification unless such work was completed previous to September, 1926.

A student transferring from another college will be required to meet the same requirements as any other applicant. A student transferring 64 hours or more will be excused from Freshman tests. Students transferring less than 64 hours may be excused from some or all Freshman tests if they have a transcript of their test record sent to the college.

Any other student must take the tests or submit his test records with his transcript of credit. No student may obtain a certificate or degree without a minimum residence of one year in this College. Junior Standing can be attained only after attendance at Indiana for one semester.

**Absence and Tardiness.** The college has no cut system of absenteeism. In case of absence or tardiness, the student will fill out a blank and present it to the teacher for admission to the class.

The teacher will pass judgment on the merits of the excuse and handle the matter accordingly.

The blanks will be available at any department office.

This plan puts the responsibility first upon the student, second upon the teacher, and third upon the Deans of the Undergraduate Schools, who may in turn furnish the adviser and the Dean of Men or the Dean of Women with whatever information is necessary for a follow-up.

Whenever a teacher feels that any student has been absent or tardy to an extent that might endanger scholastic standing, the teacher will report the fact promptly to the office of the Dean of the appropriate undergraduate college.

**Grades.** The following grades are used in reporting the standing of students at the end of each semester or summer term: A, excellent; B, good; C, average; D, passed; F, failed; I, incomplete.

A grade of F can be cleared only by repeating the course in the regular way. The grade of I is used to record work which so far as covered, is of passing grade, but is incomplete because of personal illness or other unavoidable reason. It must be made up within two months after the student returns to college.

**Quality Points.** Quality points are assigned as follows: Grade A, 4 quality points per semester hour; B, 3 quality points per semester hour; C, 2 quality points per semester hour; D, 1 quality point per semester hour and F, no quality points.

To qualify for graduation, a student must have secured twice as many quality points as the number of semester hours he has earned in this college toward his degree. Quality points are not counted on grades from other schools and a student transferring from another school is held responsible for quality points only on work taken in this College.

**Advisory System.** Purpose of the advisory system is to assist the student in his orientation to college life. Each student is assigned to a faculty adviser who confers with him relative to his program, his activities, his academic work, the evaluation of his progress and his education in values. At mid-semester teachers make reports of unsatisfactory work to the student's adviser. The adviser consults with the student reported with the thought of assisting him to improve his status by the end of the semester.

**Grade Reports.** About a week after each semester or summer session a full report is given or mailed to every student. Parents do not receive reports as it is assumed that college students are sufficiently mature and trustworthy to report the facts to their parents.

**Criteria Governing Continuance in College.** It is expected that a student shall earn twelve hours and twenty-five quality points each semester to continue in good academic standing. A student earning less than 17 quality points in a semester will be dismissed from College.

A student who has earned less than twelve hours and twenty-five quality points in a semester but more than 17 quality points may con-

tinue on probation for one semester. During the semester that the student is on probation he will carry a limited program of studies not to exceed 15 semester hours. Where feasible, courses in which he received "D" or "F" grades will be repeated. If the student fails to clear academically by earning 12 semester hours and 25 quality points during the semester of probation, he will be dismissed from the College.

The student who is dismissed from the College under these circumstances will be provided with one opportunity to request readmission to the College and restore himself to good academic standing. He may return to the College after the lapse of at least one year to pursue a complete summer session program consisting of 12 semester hours of work. All grades received for the 12 semester hours must be "C" or better to earn the student the opportunity to request readmission at the conclusion of the summer session.

If the student chooses to avail himself of the procedure provided for him to seek readmission, it will be his responsibility to notify the Office of the Dean of Undergraduate Studies and Office of the Dean of Students by April 1st of the year in which he plans to take the full summer session program. It will also be necessary for him, at that time, to pay his advance deposit fees to provide for his registration in case he is readmitted in the fall semester. If he is not readmitted the fee will be returned.

**Classification of Students.** Students are placed in one of four classes according to progress towards graduation.

A freshman has less than 30 semester hours and 62 quality points.

A sophomore has at least 30 semester hours and 62 quality points but has not attained junior standing. (Transfers having 30 or more semester hours are so classified for one semester.)

A junior has applied for junior standing and has been approved. (See Junior Standing explanation, below.)

A senior has been approved for junior standing and has earned 96 or more semester hours. (Persons holding degrees may be classified as seniors.)

**Junior Standing.** The main purpose of junior standing is to assure students that success in college is evident; also, that the college intends to recommend him for a position if he continues his progress at the same level.

Requirements established for junior standing emphasize the fundamental areas in which the student must develop. It is more than a look at the scholastic record although deficiencies in a student's education must be met.

Formal admission to junior standing is a requisite for continuing the program in teacher education. Students will make application for admission to junior standing during their fourth semester which

is just prior to the time they will be beginning an intensified program of professional work. The applications are taken under advisement for approval or disapproval by the Committee on Professional Standards.

Students must meet the following requirements to obtain approval for junior standing:

1. The scholastic record must be "C" average or better for the first two years of work taken by the student, with a minimum of 62 semester hours, and the student must continue in good standing.
2. A passing grade must be attained in Communication I and Communication II. Students who transfer English credits to Indiana and are given credit for Communication II must attain at least a "C" grade in Communication I. If less than a "C" is earned, it will be necessary for the student to take Communication II.
3. An adequate level of achievement as measured by the sophomore examinations in Reading, Writing, Mathematics, Social Studies, and Science will be required. A student who fails any one of the examinations must repeat the test or tests the next semester or summer session he is in college. Some students may be advised to take additional course(s) in the areas where test scores are lowest.
4. The voice must be pleasing and free from objectionable qualities. Students who have failed to pass the speech test are required to take corrective work in the Speech Clinic until their deficiencies, if remediable, have been overcome. Irremediable cases are given special consideration by the committee.
5. A well-balanced record of extra-curricular activities should have been developed in college or home community.
6. The student must have the endorsement of his department. A student who fails to receive the endorsement of his department should clarify his standing with the department or change his major field.

After the first application for Junior Standing only one department change will be permitted. If the student, after his first application, changes his department it is his responsibility to see that his new department has every opportunity to evaluate him as a candidate for a degree in that particular area. Students who fail to meet the above requirements will be given one semester or summer session to make them up. Students who fail to clear their deficiencies at the time of the second application will be dismissed from the college. The student so dismissed from the College may seek readmission after the lapse of one year.

In this procedure for junior standing the student is treated as an individual who has his own hopes, skills, and desires. Not everyone may be a successful teacher but the College hopes to aid every student in achieving a successful life. If in the junior standing process it is found that the student is not suited for the teaching profession, the college will endeavor to assist him in making an adjustment to a new objective.

Credentials will be examined by the Committee on Professional Standards and decisions will be reached on the basis of all evidence available.

## GRADUATE STUDIES AT INDIANA STATE COLLEGE

Graduate work leading to the Master of Education degree has been available at Indiana State College since September, 1957. At present the graduate student may earn this degree by working in any one of the following fields: Art, Biology, Elementary Education, English, Geography, Guidance, Mathematics, Physical Science, Science, Social Studies, Business, and Music.

In each of the programs the thirty hours of course work required for the degree is divided into four categories. The first category involves subject matter concentration in which the student completes from 14 to 22 hours of work. The second area includes 4 to 10 semester hours of work in the area of professional studies and may include a thesis. In the third place every student must take one two-hour course in foundations of education, and finally a two-hour course in Elements of Research is required.

The student has a choice of completing the research requirements for this degree either by preparing a thesis for which 2 to 4 semester hours of credit may be given, or he may complete all thirty hours in course work and, in addition, prepare a research project.

To be eligible to take work in the Indiana Graduate Program a student must:

1. Present a Bachelor's degree from a college or a university that has been accredited by its regional accrediting agency.
2. He must present a transcript of his undergraduate work showing a 2.5 honor point value for all four years of his undergraduate work. The 2.5 assumes a grade of A to have 4 honor points per credit hour, a grade of B to have 3 honor points per credit hour, a grade of C to have 2 honor points per credit hour, and a grade of D to have 1 honor point per credit hour.

If the applicant's undergraduate record does not meet this 2.5 honor point value, he may be admitted by making a satisfactory score on the entrance qualification examination.

3. The applicant must present a Pennsylvania Teaching Certificate or its equivalent. This implies that he have an undergraduate major in the field in which he wishes to concentrate on the graduate level.

For detailed information on the Graduate Program at Indiana, one should write to the Dean of the Graduate School, Indiana State College, for a copy of the Graduate Bulletin. This publication explains the steps necessary for admission, the requirements for the degree, and an explanation of each program.

## FEES, DEPOSITS, REPAYMENTS

(Subject To Change)

## SCHOOL OF EDUCATION

Basic Semester Fee for Regular Session. The basic fee for each student in each curriculum is charged as follows:

Elementary Curriculum .....	\$125.00
Secondary Curriculum .....	125.00
Art Curriculum .....	143.00
Business Education Curriculum .....	137.00
Home Economics Curriculum .....	152.00
*Music Education Curriculum .....	170.00

This fee covers registration and the keeping of records of students, library, student welfare, health service (other than extra nurse and quarantine), and laboratory facilities.

Students taking NINE or fewer semester hours shall pay at the rate of \$12.50 per semester hour. Students taking more than NINE semester hours shall pay the regular basic fees; basic fees for special curriculums shall be prorated on the basis of an eighteen semester hour load.

## SCHOOL OF LIBERAL ARTS

Basic Semester Fee for Regular Session. The basic fee for each student in the Liberal Arts Curriculum is \$150.00 per semester.

Students taking NINE or fewer semester hours shall pay at the rate of \$15.00 per semester hour. Students taking more than NINE semester hours shall pay the regular basic fees.

OTHER FEES APPLICABLE IN THE SCHOOL OF  
EDUCATION AND THE SCHOOL OF LIBERAL ARTS

Housing Fee. The housing fee for students is \$288.00 per semester. This includes room, meals in one of the college dining rooms, and laundry of sheets and pillow cases. For rooms with running water there is an added charge of \$9.00 per student per semester. Personal laundry will be done at the college for an additional \$1.00 per week, \$18.00 per semester if desired. Students desiring personal laundry service must so indicate at the time they register. Arrangements made at registration will stand for a full semester.

Student Activity Fee. An activity fee is collected from all students and administered through the Student Co-operative Association

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\*This fee includes private instruction for all work which may be assigned by the Chairman or by the student's adviser, but does not include fees listed under "Private Instruction in Music" on next page.

under regulations approved by the Board of Trustees. This fee of \$20.00 per semester covers the cost of student activities in athletics, lectures, entertainment, student publications, etc., and is payable in one sum for the semester at the time of registration. No activity fee is charged for Saturday campus and extension classes.

**Late Registration Fee.** Each student registering after the date officially set for registration is required to pay an additional fee of \$1.00 per day until the student is in regular attendance (except when permission for late registration has been secured in advance from the President because of illness or other unavoidable causes), provided that the total amount of the late Registration Fee shall not exceed \$5.00. The same regulation shall apply to approved inter-semester payments.

### SPECIAL FEES

**Private Instruction in Music.** A charge of \$24.00 per semester is made for one lesson per week in voice, piano, band or orchestral instruments to persons not registered in the music department. Members of the music department who wish additional private instruction other than that assigned by the Chairman (and included in their \$145.00 basic fee) pay the same rate for this extra private instruction.

The fee for practice use of piano, band, or orchestral instruments for one period per day is \$6.00 per semester. The fee for practice use of the pipe organ one period per day is \$36.00 per semester. If state-owned instruments are not available, the music department will assist in securing instruments from individuals for students at the current rate of \$8.00 per semester.

**Damage Fee.** Students are responsible for damages, breakage, loss, or delayed return of college property.

**Infirmary Fee.** After three days in the college infirmary the College shall charge students who regularly eat in the college dining room an additional \$1.00 for each day. Students who room at the college but do not eat in the college dining room shall pay \$3.00 per day after the third day. Day students admitted to the infirmary pay board at the rate of \$3.00 a day. This charge includes the regular nurse and regular medical service but does not include special nurse or special medical service.

**Degree Fee.** A fee of \$5.00 to cover the cost of a diploma must be paid by each candidate for a degree.

**Transcript Fees.** A fee of one dollar (\$1.00) shall be charged to the student for each transcript of his record, except that each student upon graduation will be entitled to one transcript without charge.

Transcripts are not issued directly to the student.

**Delinquent Accounts.** No student shall be enrolled, graduated, or receive a transcript of his records until all previous charges have been paid.



**Other Charges.** In addition to the above fees the average student will require approximately \$75.00 per semester for books, gymnasium costume, student organization dues, etc.

**Military Clothing Deposit.** A deposit of \$5.00 must be made by all students at the time of registration, if enrollment in the ROTC is included. Any balance remaining in the deposit after losses of military clothing have been deducted will be returned at the end of the college year, or sooner, if the student terminates his enrollment in the ROTC.

**Advance Registration Deposit.** A deposit of \$25.00 must be made by all students when registration is requested. A check or money order for this amount must be drawn to the Commonwealth of Pennsylvania. If a money order is used it must be payable at Harrisburg, Pennsylvania. This is a guarantee of the student's intention to enter college for the term or semester designated. This money is deposited with the Department of Revenue to the credit of the student's basic fee.

**Private Accounts.** As a convenience to students, personal deposits may be made in the Student Co-operative Book Store and drawn against by countercheck from time to time. A small fee will be charged for this service.

### SUMMER SESSIONS FEES

**Basic Fee for Six-Weeks Summer Session.** The fee for students enrolled in the School of Education for the regular Summer Session is \$12.50 per semester hour. A minimum basic fee of \$37.50 is charged.

The fee for students enrolled in the School of Liberal Arts for the regular Summer Session is \$15.00 per semester hour. A minimum basic fee of \$45.00 is charged.

**Basic Fee for Three-Weeks Pre- and Postsessions.** The basic fee for students enrolled in the School of Education for the Pre- and Postsessions is \$12.50 per semester hour. A minimum basic fee of \$37.50 is charged.

The basic fee for students enrolled in the School of Liberal Arts for the Pre- and Postsessions is \$15.00 per semester hour. A minimum basic fee of \$45.00 is charged.

**Basic Fee for Special Curricula in the School of Education.** In addition to the above fee for the summer sessions, students enrolled in the special curricula will pay the following additional basic fees:

	Summer Session	Pre- Session	Post- Session
Art .....	\$ 6.00	\$3.00	\$3.00
Business Education .....	4.00	2.00	2.00
Home Economics .....	9.00	4.50	4.50
Music Education .....	15.00	7.50	7.50

## OTHER FEES APPLICABLE IN THE SCHOOL OF EDUCATION AND THE SCHOOL OF LIBERAL ARTS

**Activity Fee.** For the regular summer session the fee is \$7.00 and for the pre- or post-summer sessions, \$3.50.

**Housing Fee.** For the regular summer sessions the fee is \$96.00 and for the pre- and postsessions, \$48.00. This fee includes room, meals and limited laundry. Rooms with running water carry an extra charge of \$3.00 for the six weeks session. Students who request a double room to occupy alone pay an additional \$2.00 per week.

**Out-of-State Fees.** Students who are not residents of Pennsylvania will pay a basic fee of \$15.00 per semester hour with a minimum charge of \$45.00 for each session. If enrolled in the special curricula they will pay the same special curriculum fees as resident students who are Pennsylvanians.

## REPAYMENTS

No refunds will be made to students who are temporarily suspended, indefinitely suspended, dismissed, or who voluntarily withdraw from college.

For personal illness, if certified to by an attending physician, or for other reasons approved by the Board of Trustees, the housing and basic fees for that part of the semester which the student does not spend in college will be refunded.

## TIME OF PAYMENTS

Payment in full of all Pre-Session fees .....	June 10, 1963
Payment in full of all regular Summer Session fees .....	July 1, 1963
Payment in full of all Postsession fees .....	August 12, 1963
Payment for the first half of first semester .....	September 4-7, 1963
Payment for the second half of first semester .....	November 4-6, 1963
Payment for first half of second semester .....	January 20-22, 1964
Payment for second half of second semester .....	March 18-21, 1964

Payment for the entire semester may be made in September and January if desired. Above dates are for 1963-64. Dates for 1964-65 will be about the same. Exact dates for 1964-65 may be secured from the college registrar or business office.

## HOW BILLS AND CHARGES ARE TO BE PAID

All bills, including basic fee, housing fee, extra room rent and special department fees are payable at least nine weeks in advance. Checks should be made payable to the Commonwealth of Pennsyl-

vania. If a money order is used it must be payable at Harrisburg, Pennsylvania. Checks or money orders must be presented in the exact amount of the account. Book Store purchases are on a cash basis.

Students will not be permitted to enroll for any semester until all bills previously incurred have been paid; nor will credit be certified to other institutions or to the Department of Public Instruction until all overdue accounts have been paid.

Students desiring to leave school before the close of a semester must report to the president, dean of instruction, registrar and to the business office to settle all unpaid accounts.

Meal tickets for visitors can be obtained in the Slater Company office.

All checks must be made payable to the Commonwealth of Pennsylvania, except for the activity fee, which should be made payable to the Treasurer of the Student Co-operative Association.

## SCHOLARSHIPS AND LOANS

By action of the College Loan and Scholarship Committee, all freshmen applicants for financial aid at Indiana State College must submit to the Dean of Students' Office the Parent's Confidential Statement of the College Scholarship Service. A copy of the Parent's Confidential Statement may be obtained from your school counselor, principal, or the College Scholarship Service, Box 176, Princeton, New Jersey.

**State Scholarships.** The Department of Public Instruction annually awards scholarships on the basis of competitive examinations held on the first Friday of May of each year. These are awarded in each county and senatorial district in the state. Each scholarship is worth \$200 a year for four years and may be used at the State Colleges. Inquiries concerning State Scholarships should be sent to Dr. Charlot G. Coffroth, Assistant Director, Credentials Evaluation, Department of Public Instruction, Harrisburg, Pennsylvania.

**Corinne Menk Wahr Scholarships.** Through the generosity of Corinne Menk Wahr, Class of 1916, approximately fifteen scholarships are awarded each year to worthy students. The amounts range from one hundred to one hundred and forty-four dollars, payable in the designated amount for each of four years. Applicants for Wahr Scholarships must be residents of Pennsylvania and must be interested in the teaching profession. Applications may be secured from the Dean of Students. In any one year as many as eighty students may be receiving a total of \$9,000 of Wahr Scholarship money. Policy governing the scholarship fund is established by the Board of Trustees and administered by a committee appointed by the President of the College.

Eight Wahr merit recognition scholarships of fifty dollars each are given each year to students at the college for excellence in certain fields as follows: The student who excels in athletics; the student who contributes the most to campus welfare; the student who does the most to promote the fine arts; the student showing the most initiative in bringing new ideas or action to the Indiana campus; the student evidencing the most professional promise as a teacher; the student with the highest scholarship during the first three years of college; and the student who writes most effectively; and the graduate student with the most commendable record.

**Clark Scholarship.** The Lieutenant Alpheus Bell Clark Memorial Scholarship was established by Mr. and Mrs. Steele Clark, Cherry Tree, Indiana County, in memory of their son. The sum of fifty dollars will be awarded each semester to that young man or woman, a senior in the College and a resident of Indiana County, who in the opinion of a committee chosen by the President, best qualifies for the honor in terms of academic ability, leadership, and service to the College with preference going to a veteran, or a son or daughter of a veteran.

**Morris Scholarships.** The Helen Wood Morris Scholarships were established by Lieutenant-Colonel L. M. Morris, of Altoona in memory of his wife, a graduate of the College. The sum of one hundred dollars will be awarded annually to students selected by a committee named by the institution, one award to a sophomore, the other to a junior. Students chosen must be in the highest quarter of their class, must be in need of financial assistance, and must have demonstrated worthiness in terms of character, personality, leadership and American citizenship.

**Presser Foundation Scholarship.** The Presser Foundation of Philadelphia awards two scholarships each year to music students at the Indiana State College. Interested music students should apply through the chairman of the music department.

**Kappa Delta Pi Scholarships.** The Kappa Delta Pi Scholarship was established by the Beta Gamma Chapter of this college to honor that member of the sophomore class who is judged to be the ideal college student. This award of twenty-five dollars is made each year by a committee of the local chapter and is awarded on the basis of scholarship. The Beta Gamma Chapter beginning with the 1961-62 college year is also offering an award of \$25.00 to the graduate student at Indiana State College with the best academic record.

**American Federation of Women's Clubs Scholarships.** Four scholarships of \$100 each are offered annually to students in the art education department. Funds for these scholarships have been provided by the Western Pennsylvania Branch of the American Federation of Women's Clubs.

**Syntron Foundation Scholarships.** Through the Syntron Foundation of Homer City, four scholarships of \$300 are awarded an-

nually to freshmen. Preference is given to graduates of Laura Lamar, Blairsville and Indiana High Schools. Sixteen scholarships good for four years are in effect each year. Applications must be filed with the Dean of Students by February 1.

**Extension Homemaker Scholarships.** Homemakers participating in the Home Economics Extension program contribute funds annually for scholarships to be given to sophomores, juniors or seniors who are majoring in home economics in several colleges in the state. Indiana awards four on the basis of 4-II experience, need, scholarship and other outstanding characteristics.

**Ethyl V. Oxley Scholarships.** Each year the Alumni of the Home Economics Department awards \$50 scholarships to one, two or three outstanding students in the department. Awards are based on evidence of such characteristics as dependability, initiative in worthwhile professional experiences, accepting responsibility, social sensitivity and sincerity in dealing with people, sense of values, personality and scholarship.

**Anonymous Mathematics Scholarship.** An alumnus of the College has established a \$50.00 scholarship award which is given annually to an upper classman in the mathematics department. The recipient is selected by the mathematics department faculty and is based on academic ability and need.

**Hannah Kent Schoff Memorial Scholarship.** Annually a scholarship worth six hundred dollars (\$600) will be awarded to two entering freshmen at Indiana State College. Applicants must be graduates of Pennsylvania High Schools who wish to prepare for teaching. Application forms may be obtained by writing the Dean of Students' Office, State College, Indiana, Pennsylvania. Applications must be filed prior to March 1st of each year.

**Harriet Farr Davis Scholarship in the Fine Arts.** This scholarship worth fifty dollars (\$50) is awarded each year to a senior in the Art Department who best meets a number of criteria established for this award. This scholarship was established by Dr. Guy P. Davis, a retired member of the faculty, in honor of his wife, Harriet Farr Davis.

**Alpha Omega Gamma Scholarship.** The Alpha Omega Gamma Scholarship was established by the Honorary Geography Fraternity to honor that Freshman geography major who attains the highest overall scholastic standing. This award of twenty-five dollars (\$25) is made each year by a committee of the local chapter in consultation with the Dean of Instruction.

**Alan P. Mewha Geography Memorial Loan Fund.** This fund was established in 1959 and is administered by the faculty of the Geography Department. Juniors and Seniors have priority on loans from this fund. Interest rates are the same as those for the Jane Leonard Fund.

**Elementary Scholarship Award.** Through the generosity of an alumna of the Elementary Education Department, an annual scholarship award of \$50 is made each year to a senior in the Elementary Education Department who has maintained a fine academic record and who has strong professional promise.

**The Lenora Pechan Scholarship.** The Lenora Pechan Scholarship is awarded by Dr. Albert R. Pechan, a member of the Senate of the Commonwealth of Pennsylvania and of the Board of Trustees of the State College, Indiana, Pennsylvania, in the amount of \$100 each year (\$50 each semester) to a sophomore student, a member of the Reserve Officer Training Corps, who has been an outstanding student in the ROTC and whose other academic work is satisfactory. First priority will be given to a student from Armstrong County, selected by the officers of the Reserve Officers Training Corps and the Faculty Scholarship and Loan Committee.

**The Norah E. Zink Football Award.** Dr. Norah E. Zink, a retired professor of the Geography Department of Indiana State College has established an annual award of \$25 which she gives that member of the varsity football team whose academic average shows the greatest improvement over the previous semester.

**The McCreary Scholarships.** The McCreary Tire and Rubber Company of Indiana is establishing a scholarship program. Scholarship awards will be made to sons and daughters of the McCreary Tire and Rubber employees.

**ROTC Cadet Scholarship Fund.** The Indiana Reserve Officer Training Corps has established a cadet scholarship fund. Each semester a \$50 scholarship award is granted to a member of the Cadet Corps who is maintaining a satisfactory level of performance in both his academic and ROTC work and who is in need of financial help.

**Quota Club Scholarship.** The Quota Club of Indiana has established a scholarship of \$50 a semester or \$400 for four years for a woman student at Indiana State College.

**Jane E. Leonard Memorial Loan Fund.** This loan fund was established several years ago and has been built up largely through the work of the faculty and alumni. The fund now totals about \$30,000. The governing board in charge of granting loans consists of a faculty committee appointed by the president of the College. The plan in operation provides for the granting of loans to sophomores, juniors and seniors with interest at two per cent, payable at maturity of the loan. In special cases of emergency a freshman may arrange for a short-term loan during his second semester in college. The maximum outstanding loan to any student cannot exceed \$400. Applications are available at the Dean of Students' Office.

Thirty-day loans not to exceed \$20 are available to all students in cases of emergency. No interest is charged. These loans are available upon application to the Dean of Students, Dean of Men, or Dean of Women.

**National Defense Student Loan Program.** The National Defense Student Loan Program was authorized by the enactment of Public Law 85-864, the National Defense Education Act of 1958. The law requires that each borrower be a full-time undergraduate or graduate student, that he be in need of the amount of his loan to pursue his courses of study, and that he be, in the opinion of his institution, capable of maintaining good standing in his chosen courses of study. The law further provides that special consideration in the selection of loan recipients be given to (a) students with a superior academic background who express a desire to teach in elementary or secondary schools and (b) students whose academic background indicates a superior capacity or preparation in science, mathematics, engineering, or a modern foreign language. A student may borrow for college expenses in one year a sum not exceeding one thousand dollars (\$1,000), and during his entire course in higher education, a sum not exceeding five thousand dollars (\$5,000). Applications are available upon request at the office of the Dean of Students.

**Mack Loan and Scholarship Fund.** A loan and scholarship fund has been established by members of the Mack family to be used for making loan and scholarship grants to worthy students with financial need. Preference will be given to freshmen and sophomores who can give evidence of academic excellence, financial need, and promise as a future member of the teaching profession. At the present time the maximum loan available is \$200 per year.

**Men's Varsity "I" Loan Fund.** The Men's Varsity I Club has built up a loan fund for members of varsity athletic teams in good standing. Members may borrow not more than \$150.00 per year. Loans are made for a reasonable period of time and are interest free for the first year. Thereafter the interest rate is two per cent per annum.

**Veterans.** Indiana is approved to offer training under the Korean G. I. Bill (Public Law 550) and Public Law 894 (disabled Korean veterans). Students who are entitled to training under one of these bills should contact the Assistant Dean of Men, who also serves as Veterans' Counselor, immediately after being accepted for admission to Indiana. The office of the Veterans' Counselor is in room 101, Whitmyre Hall.

Children of a deceased veteran whose death was due to service-related causes may be eligible for educational assistance from the Federal Government under Public Law 634 (War Orphans' Educational Assistance Act). Immediately upon acceptance to Indiana, men and women who may qualify for such assistance should contact Veterans Administration to determine their eligibility. They should report to the Assistant Dean of Men before registering at the College if the Veterans Administration approves their training under Public Law 634.

## REGULATIONS OF THE COLLEGE

Enrollment in the College implies an agreement on the part of each student to comply with the customs of the College and to obey the regulations.

**Women's Dining Room Policy.** All freshman and sophomore women living in college dormitories or the college operated houses shall take meals in the college dining room unless excused by the Dean of Women for good cause. Junior and senior women may eat in the dining room if they so desire. All arrangements for off-campus meals must be made with the Dean of Women before June 1 or January 15. This policy is subject to change at the close of any semester. Any changes in dining room status during the semester must be approved by the Dean of Women.

**Women's Housing Policy.** All single women except those living with immediate relatives, those working for room and board in approved private homes, graduates of other institutions, or veterans are required to live in college dormitories or college operated houses. Married women are expected to arrange for accommodations off campus.

**Note:** Working for room and board constitutes the giving of twenty hours of work in exchange for room and meals. There shall be no exchange of cash monies except where the employer feels that the employee has done more than her share, or where extra work is done over and above the twenty hours.

Up to April 15, those students who have indicated their intention of returning in the fall will have rooms assigned to them as follows: If they desire to keep the rooms they have, these rooms are re-assigned to them, unless for some reason it is felt wise or necessary to withdraw students from said rooms. As soon after April 15 as possible, the remaining rooms are chosen by lot. Only students who have indicated their intention of returning in the fall may reserve a room for the following year. Otherwise, their assignment to a room is cancelled and they take a place on the list of entering students.

General supervision of the personal and social welfare of women students is exercised by the Dean of Women, Assistant Dean of Women, and head residents. Student body, faculty, and administration cooperate to maintain high standards of social life and conduct. Privileges are granted according to official class ratings based on academic achievement. Restrictions which are put upon the freedom of students are felt to be necessary for successful study and living conditions and for the well-being of the group.

Participation in dormitory government is vested in the Women's Collegiate Association, of which all resident women are automatically members. Representatives from each living unit make up the Council, which serves as a clearing house for discussing difficulties and making recommendations concerning dormitory problems. A Judicial Board administers and enforces association regulations.



**Men's Housing Policy.** Campus rooming facilities are under the supervision of head residents, student hall counselors or house heads, and these are responsible to the Dean of Men and Assistant Dean of Men. This group assists in effecting orderly procedures in resident living. All men, whether living on or off the campus, are expected to abide by the rules and regulations of the College.

Whitmyre Hall is reserved for freshman men. A limited number of freshmen are assigned to live in Langham Hall. The balance of this dormitory is assigned to upperclassmen.

All freshmen, except those who commute from home daily, or who live with relatives, or who are married, shall live in one of the dormitories, or other college property when accommodations are available. Other non-commuting students entering Indiana for the first time shall live in college property when they can be accommodated.

Likewise, upperclass non-commuting men under 21 years of age, shall live in one of the dormitories or other college property when space is available unless excused by the Dean of Men. Priority for assignments shall be to sophomores, juniors, and seniors, in that order.

Non-commuting men who cannot be accommodated on the campus are expected to select rooms in town from an approved list compiled in the office of the Assistant Dean of Men. All financial arrangements are the responsibility of the student and the landlord. The Assistant Dean of Men is responsible for supervising rooming accommodations in town.

The foregoing policy may be changed at the end of any semester.

### **Men's Dining Room Policy.**

1. All male students living in college buildings shall eat in a college dining room.

2. Men living off campus who wish to eat in a college dining room may do so as long as space is available but they shall make arrangements with the Dean of Men.

3. Cooking in rooms in college buildings is absolutely forbidden.

4. Assignments to a college dining room are on a semester basis except in cases of emergency and when excused by the Dean of Men.

5. This policy is subject to change at the close of any semester.

**Baggage.** All baggage is delivered to the basement of the dormitory to which the student is assigned. Luggage should be plainly marked with the student's name and, if the room assignment has been made, should also bear the room number. Students living in college owned or college controlled houses should mark their baggage with the street address.

**Laundry.** Ten plain pieces per week plus a maximum of four towels may be sent to the college laundry. The college provides each

student with a laundered sheet and pillow case each week plus a laundered bed spread twice a month. All pieces sent to the laundry must be plainly marked with the owner's name identified by sewed-on name tapes or indelible ink. Cash's name tapes may be ordered in department stores, or mail orders may be sent direct to the J. & J. Cash, Inc., South Norwalk, Conn. Charges are nominal.

An excellent laundry and ironing room with modern equipment is maintained on the ground floor of John Sutton Hall for the use of women students. Also, laundry facilities are available in Langham Hall for men who reside there.

**Student Supplies.** Students who live in college dormitories are furnished bed linen and bedspreads. Each student must provide blankets, towels, soap, needed toilet articles, etc. Curtains and draperies are provided.

Students must also furnish their own gymnasium attire and towels. The Physical Education Department requires regulation gymnasium and pool equipment, which are purchased in the College Book Store.

Each student is required to own a good college dictionary, approved by the English Department. Such a dictionary costs about \$6.00 and can be purchased in the College Book Store. Core courses in English require the dictionary as a standard text; other college courses use it extensively.

**Vacation and Guest Charges.** Students do not remain at the college during Thanksgiving, Christmas, Easter, or summer vacation. Students and teachers are responsible for meals of their guests at current transient rates. The transient rate for meals is as follows: breakfast, 60 cents; lunch, 85 cents; dinner, \$1.25.

A charge of \$1.56 is made for overnight guests. Arrangements should be made with the House Director, or Dean of Women, or Dean of Men, depending on the dormitory involved.

**Fire Precautions.** Students are not permitted to use or to have stoves, heaters or cookers, or other equipment for producing fire or heat in their rooms. Such equipment is prohibited by fire regulations and will be removed and confiscated by the fire inspector.

Smoking in women's dormitory rooms with the exception of the new buildings is absolutely forbidden, due to the fire hazard. Radios are permitted. Extension cords are not allowed, and double sockets only as approved by the electrician.

**The Handbook.** The Student Council publishes a handbook which is given to all students. This handbook contains information concerning college organizations, procedures, and routines and is a great help to all students. Another publication, the Freshman Information Booklet, is especially useful in the orientation of freshmen.

**Day Students.** Accommodations for women day students are provided in John Sutton Hall and Iroquois House. Similar quarters for men day students are located in Whitneyre Hall. Library facilities provide pleasant study conditions for non-resident students. Students through their House Committee assume responsibility for care and use of rooms set aside for them. Day students may purchase lunches in the College Cafeteria, the Student Union, or the Clark Hall Coffee Shop.

## SPECIAL SERVICES

**College Infirmary.** Off S. 11th Street behind Cogswell Hall is located the infirmary which is thoroughly equipped for all routine work. Four registered nurses are on the infirmary staff. Medical service is provided by a physician who comes daily to the infirmary. Twelve beds are available where resident students may have three days' free hospitalization. See page 36 for infirmary fees.

**Chest X-rays.** For several years the State Health Department has given chest X-rays to all freshmen and seniors free of charge. This service has been an important step in controlling and preventing tuberculosis in the State.

**Office Hours.** Monday through Friday: 8:00 A. M. to 12:00 Noon; 1:00 P. M. to 5:00 P. M. Saturdays: 8:00 A. M. to 12:00 Noon. Offices are not open Saturday afternoons and Sundays. Offices close at 4:00 P. M. in June, July and August.

**Library Hours.** Monday and Friday: 7:45 A. M. to 5:00 P. M.; 7:00 P. M. to 9:00 P. M., Tuesday and Thursday; 7:45 A. M. to 9:30 P. M., Wednesday: 7:45 A. M. to 9:00 P. M., Saturday: 7:45 A. M. to 5:00 P. M., Sunday: 2:30 P. M. to 5:00 P. M.

**Special Clinics.** Three clinics at the college offer diagnostic testing and remedial services in the following areas:

**Psychological Clinic** — personal, vocational, and educational counseling, and diagnosis of academic and behavior problems.

**Reading Clinic** — diagnosis and remedial programs for reading disabilities.

**Speech Clinic** — diagnosis and remedial programs for the speech handicapped.

These services are made available to the students regularly enrolled at the college as well as to supervisory officials and classroom teachers in the college service area without charge. College students who need help in any of the problem areas suggested above are encouraged to seek the help of the clinic concerned. Every effort is made to help students remove deficiencies which would interfere with their successful progress in college.

**Reserve Officers' Training Corps.** The United States Army has a unit of the Reserve Officers' Training Corps at the college. Male freshman students are expected to take and pass one year of military science. Upon graduation from the regular college course and successful completion of the Reserve Officers' Training Corps Program, the student will receive a second lieutenant's commission in the United States Army Reserve. To make this program possible, deferments from the draft are issued to the students successfully meeting the College and ROTC requirements. Upon graduation, the former student serves on active duty for a period not to exceed two years, if called by the Secretary of the Army. This enables the student to obtain his college degree and then fulfill his obligation to his country. College credit for participation in the Reserve Officers' Training Corps is given in lieu of credit for physical education.

**Placement Service.** The services of the Placement Office are available to all students of the College. Placement services are also available to students enrolled in our graduate courses. The directors of the various departments take an active interest in the placement of their graduates. Co-ordination of effort is obtained through a central committee. The Office supplies credentials to employers who are seeking applicants for positions, arranges for interviews, and serves as a center where graduates may keep their records up-to-date. Alumni are using this service increasingly. Positions are not guaranteed by the College, but Indiana's record of placement is one of the very best in Pennsylvania. The Placement Office also receives and makes available to graduates and undergraduates lists of vacancies in summer camp counseling.

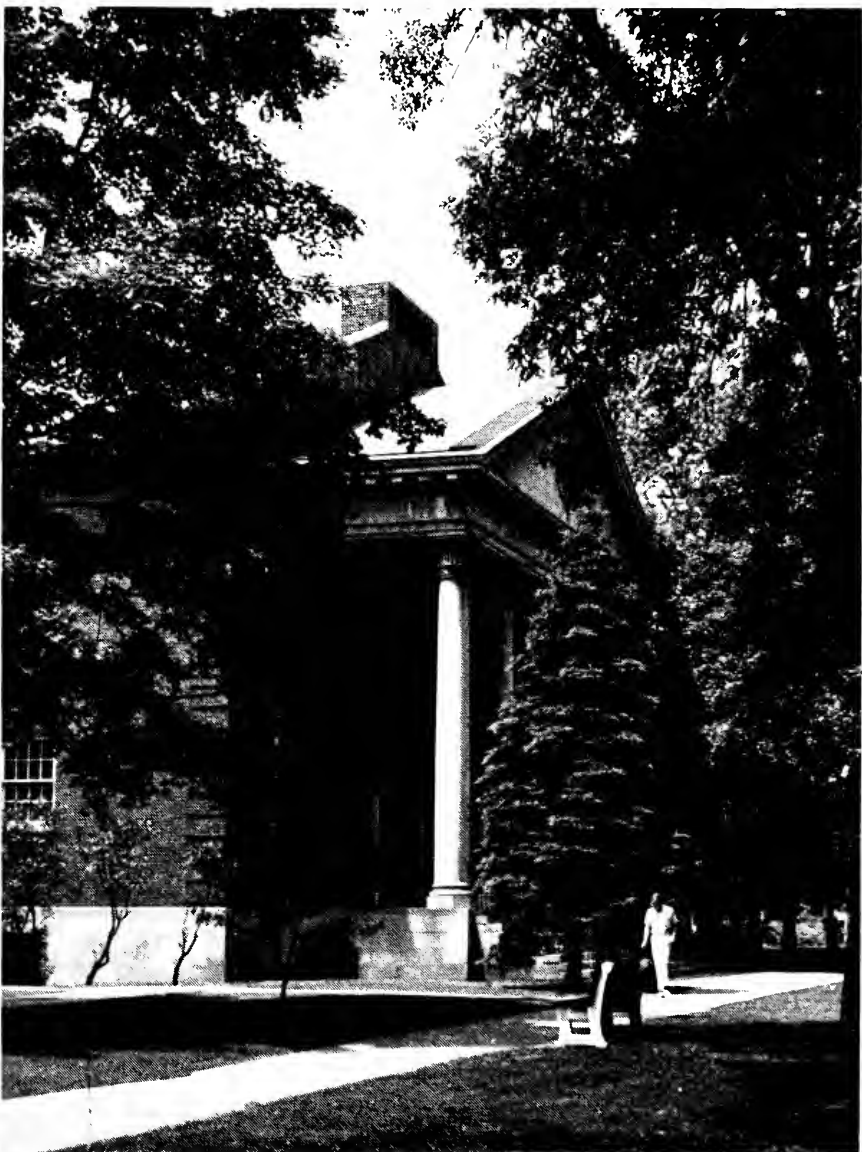
**Student Employment.** Students are employed on a part-time basis in a number of departments on the campus. Positions are filled on the basis of financial need and the special abilities required in certain jobs. Students are assigned to such jobs as waiters in the dining room, typists, office clerks, library assistants, relief switchboard and elevator operators, and janitors. Students in need of employment should file an application in the office of the Dean of Students. All assignments to student employment are made by this office. Except in cases of extreme necessity, freshmen should not seek employment, but should plan to concentrate on their college work.

Applications for student employment are not accepted from students until they are actually on campus. To be kept on student employment rolls, the student must earn at least a "C" average in his total academic program.

## THE SUMMER SESSIONS

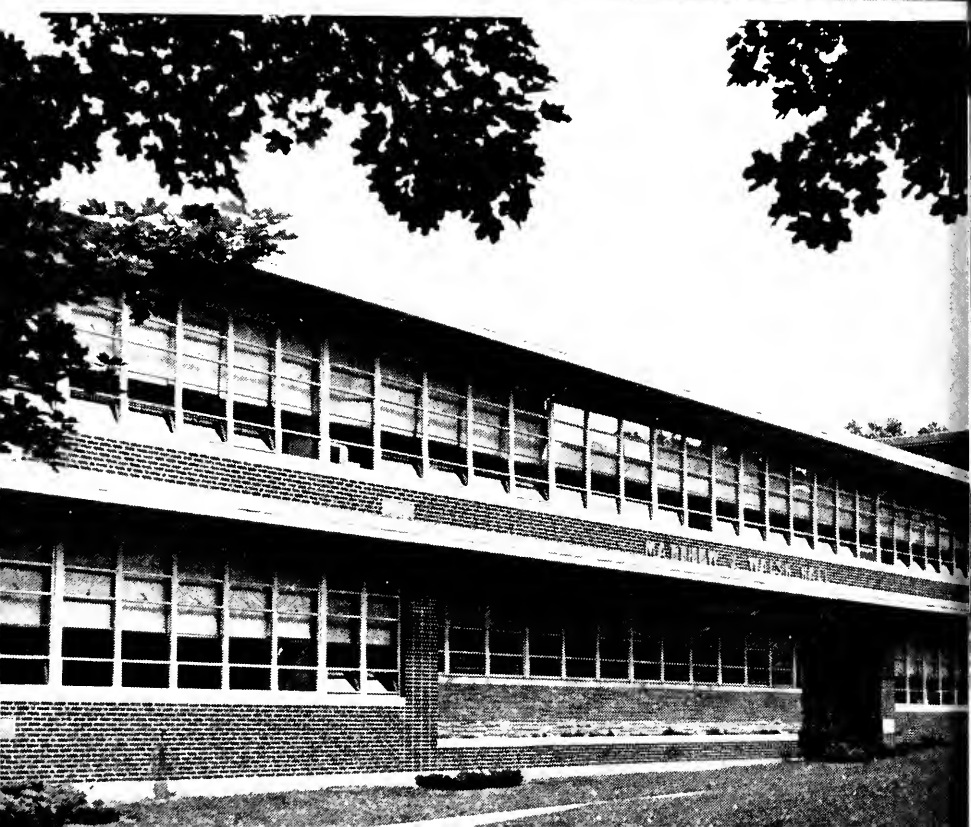
The Summer School is an integral part of the year's work. Students from other colleges, teachers in service and students in regular attendance can secure in the summer session three to twelve hours credit toward any certificate or toward graduation in any curriculum.

VIEWS and SCENES  
at  
INDIANA STATE COLLEGE  
Indiana, Pennsylvania

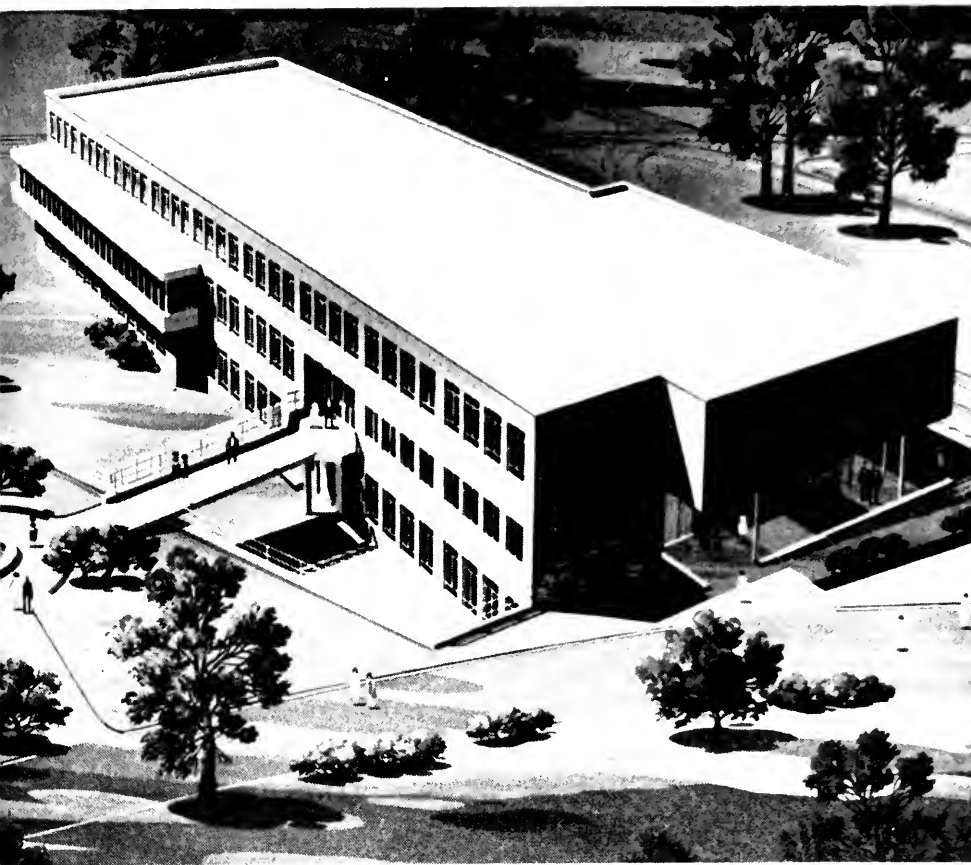




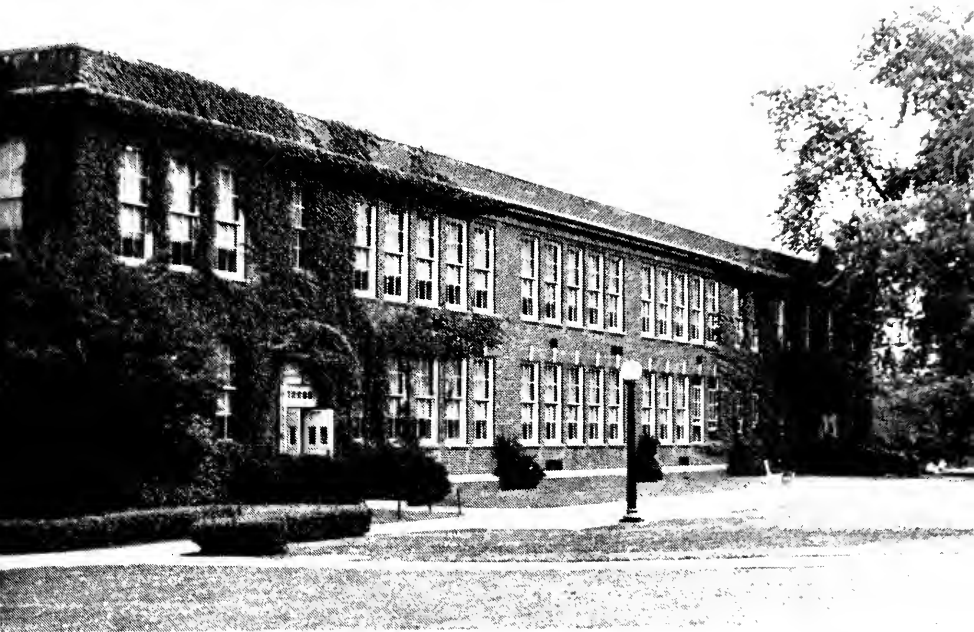
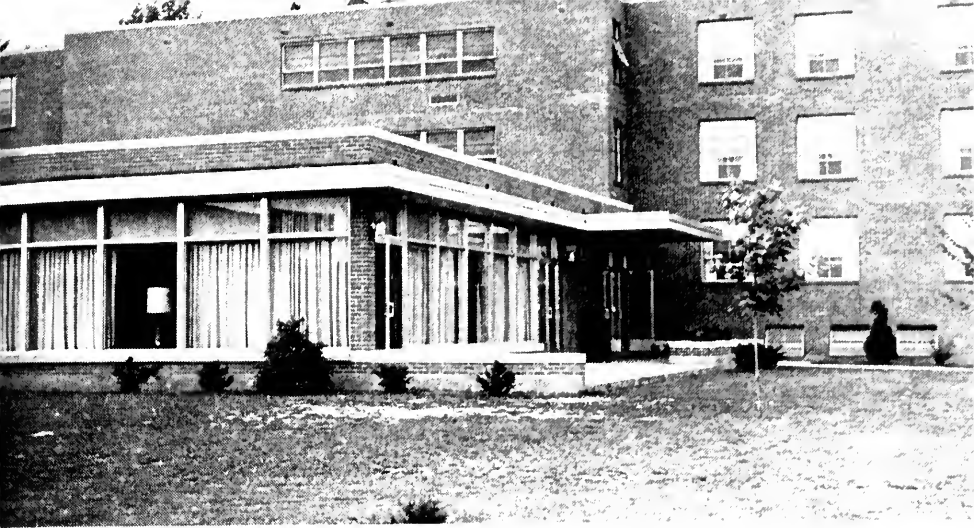


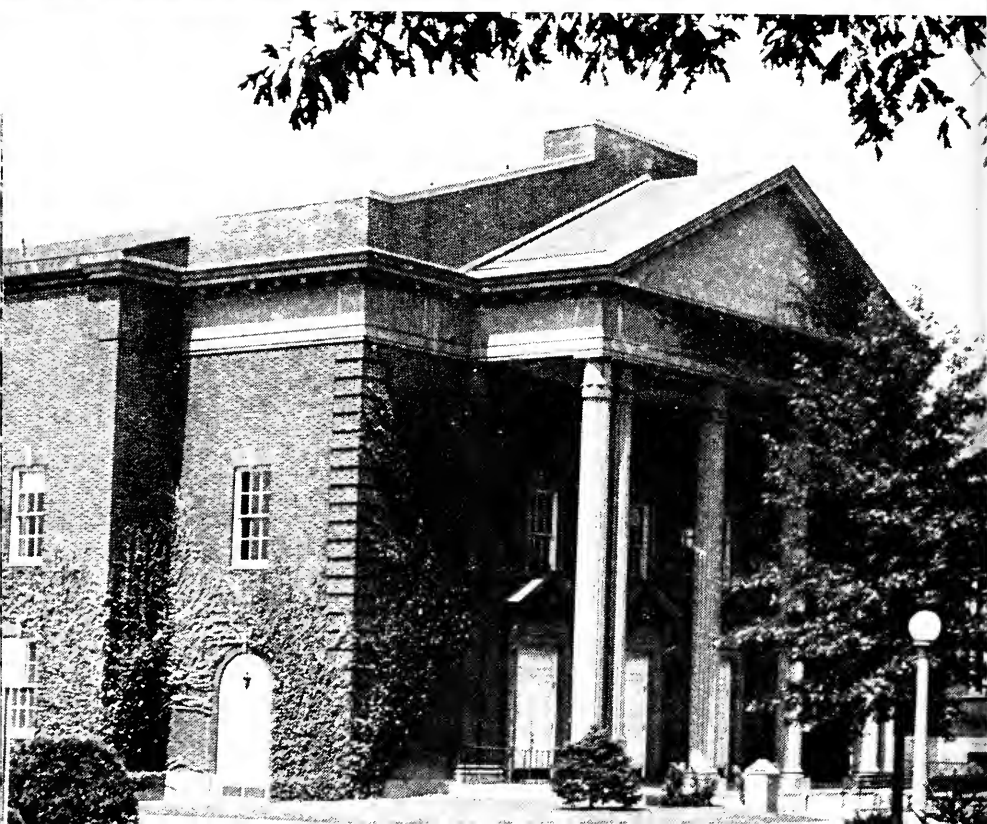












The courses are planned primarily for those who have had previous work and for those who are accelerating their work. An effort is made to meet all reasonable requests of teachers who are working toward higher certification or toward graduation.

All courses given in the summer session require the same amount of time and are granted the same credit as if taken during a regular semester. The Summer School Bulletin will be mailed to anyone desiring more complete information regarding the courses to be offered.

**Dates.** Three sessions, two of three weeks and one of six weeks, are planned for the summer of 1963. The pre-session will open Monday, June 10 and close Friday, June 28. The main session starts Monday, July 1 and continues to Friday, August 9. The postsession opens Monday, August 12 and closes Friday, August 30. It is thus possible for a student to secure three to twelve credits by attending the summer school. Dates for the summer of 1964 may be observed in the college calendar given on page 2 of this catalog.

Address Director of Summer Sessions for special bulletin indicating courses and activities of the Summer Session.

### SATURDAY CAMPUS CLASSES

**Saturday Campus Classes** are held on the campus on Saturdays (generally between 9:00 A. M. and 1:00 P. M.). Courses are arranged according to the demand for them as indicated by teachers who are interested. This is not extension work. It is credited as "residence" work. Classes are scheduled to enable students to earn as much as six semester hours credit each semester. Persons interested should write for a schedule of courses.

The basic fee for Saturday Campus Classes is \$12.50 per semester hour of credit for students who are residents of Pennsylvania with a minimum basic fee of \$37.50 and \$15.00 per semester hour of credit for students other than residents of Pennsylvania with a minimum basic fee of \$45.00. Basic fees for special curricula shall be prorated on the basis of an 18 semester hour load. Not more than six semester hours credit may be earned in one semester by one who is doing full time teaching or other employment.

### STUDENT GOVERNMENT

Student Council is composed of representatives from all departments of the college. Also, the presidents of several campus-wide organizations automatically become representatives. The president and vice-president of the Student Council are chosen in a campus-wide election. The Student Council is active in making recommendations to the Administration for the improvement of student welfare and is also active in promoting the general welfare of the college and good community relationships. Among the functions of the Student

Council are to provide an opportunity for discussion of student problems; to bring the student body, faculty, and administration closer together through a frank understanding of mutual problems and to promote the observance of policies that will lead to improvement of college campus life.

The Student Cooperative Association, Inc. A student activity fee is collected from all students and administered through the Student Cooperative Association, Inc. under regulations approved by the Board of Trustees. During the regular school year the fee is \$20.00 per semester; for the Regular Summer Session it is \$7.00; and for the Pre- or Post-Summer Session it is \$3.50. This activity fee, along with the profits from the College Bookstore, is the principal source of income for the Student Cooperative Association. This income is spent in accordance with a budget drawn up by a student-faculty finance committee and approved by the President of the College.

The program of the Student Cooperative Association is extremely broad and has a great influence on the college life of the student body. In general, all college-wide campus activities are operated by the Association and a student is entitled to participate in the variety of activities provided by the Association through the use of his "I" card which is issued to all students at registration.

About one-fourth of the student activity fee is used to finance the construction and operation of the New Student Union building which opened in the fall of 1960. The New Student Union is financed through the Association in accordance with the student approval given to a campus-wide referendum. It will consist of student lounges, a snack bar, dance floor, game room, publication rooms, bookstore and Student Cooperative Association offices.

By their membership in the Student Cooperative Association, Inc., all students are entitled to attend college athletic contests, receive the weekly college paper, "The Indiana Penn," attend all-college dances with music furnished by an orchestra, as well as many other social activities. Funds from the Association are provided to secure programs for the college convocations, motion pictures twice monthly, and also provide the student body with an active intramural program of athletics. Through the Cultural Life Series this Association brings to the campus outstanding professional leaders in the fields of music, the dance, and contemporary affairs.

The Cultural Life Series, sponsored by the College Student Cooperative Association, brings to the campus outstanding professional leaders in the fields of music, the dance, and contemporary affairs.

During recent years, this committee has presented Les Grande Ballets Canadiens, Canadian Players, Ltd. in Julius Caesar, Devil's Disciple, and Cherry Orchard, The Weavers—folk and ballad singers, Cilli Wang—Mime, Pittsburgh Symphony, Cleveland Playhouse in Volponi, Emlyn Williams in Dylan Thomas' "A Boy Growing Up," Boston Opera Company, Harry Golden, Ruth Page's Chicago Opera Ballet, and Clement Attlee.



**Women's Collegiate Association.** This organization, composed of all women boarding students, aids in directing the affairs of women students who live in College property and college-controlled houses.

**Men's Student Leagues** are divided into the Resident and Non-Resident organizations. The former aids in directing the affairs of men students who live in college property while the latter represents non-resident men. The presidents of both organizations are members of the Student Council.

## RELIGIOUS ORGANIZATIONS

Although non-denominational the college aims to be a positive religious influence. Students are encouraged to attend the churches of their choice on Sunday and to join the church clubs which offer opportunities for discussion and participation in religious programs. During the year College Vesper programs give opportunities for students to hear outstanding religious leaders of the country. The Christmas Pageant has become a tradition and attracts thousands of people each December.

Through such inter-religious organizations as the S.C.A. and denominational church clubs, students are afforded other avenues for experiences in Christian living in the form of religious meetings, social functions, and opportunities for community service. Attendance at area and district conferences provide opportunities for studying state, national and world religious problems. Another opportunity for religious participation is given in the Religion-in-life Week Program which extends over several days. Speakers and counselors from different denominations speak during this time and aid students in individual and group conferences.

## DEPARTMENTAL GROUPS

**The Art Department** sponsors the Art Club to stimulate interest in art in the College and the Community. Membership is open to all interested persons. Art students cooperate in such activities as "The Oak," "The Penn," "Student Writes," and college dramatic productions. The Annual Cooperative Exhibition program and the Cooperative Collection of Art are organized and directed by the department and supported financially by the Student Cooperative Association. Delta Phi Delta's Alpha Lambda Chapter of the national honorary art fraternity sponsors member exhibitions, the clothesline show and other art activities such as the life drawing and painting classes for advanced students.

**The Business Department** sponsors the Junior Chamber of Commerce. Membership is open to all students in the department. Outings are held at the College Lodge in the fall to welcome freshmen and in the spring to honor seniors. Professional meetings provide opportunities for students to take part in panel discussions and to hear

outstanding leaders in business education and in the business world. Members of the organization participate in community service projects which the organization sponsors.

The Elementary Education Department sponsors a student branch of the Association for Childhood Education International. This organization serves as a focal point for the professional and social activities of students who are majoring in elementary education, and has for its purpose the promotion of the best possible education for children from the nursery school through the elementary grades.

A student planned professional and social program helps the members of the organization to achieve the purpose of the ACE.

The English and Speech Department sponsors three campus publications, all of which are underwritten financially by the Student Cooperative Association: "The Indiana Penn," weekly newspaper; "The Indiana Student Writes," annual collection of student creative writing; and "The Cue," the student handbook. Advisory responsibility of a literary nature is also assumed by the Department for "The Oak," the college annual. The Department sponsors "Masquers," an all-college group devoted to drama and the allied arts. The English-Speech Club, whose membership includes all students in the Department, holds a social-professional meeting once each year at the College Lodge as well as numerous other meetings of a purely professional nature throughout the year.

The Foreign Language Department sponsors the Foreign Language Club, which is open to all students interested in foreign languages and cultures and to foreign students in attendance at Indiana. For certain activities the Club is subdivided into a student branch of the Alliance Francaise and Los Hispánicos.

The Geography Department sponsors two organizations: Alpha Omega Gamma Fraternity, a selected group of outstanding geography students, and the Geographical Society, open to interested students from all curricula. The latter group publishes the Geo-Rite, the departmental paper, offers a tutoring service, and manages the weather observation post, among other activities.

The Mathematics Department sponsors a Mathematics Club for all students interested in mathematics. Social and professional meetings are held each semester.

The Military Science Department sponsors several extra-curricular activities: An ROTC company of the Association of the United States Army, comprised of Cadet Officers whose objectives are to promote the role of the Army in the defense of the nation, to increase military skill, and to develop the general military background of its members; a Company of the national military honor society, The Pershing Rifles. This organization has exacting academic and military requirements that all cadets are eligible to strive for; the Varsity Rifle Team is coached and managed by the ROTC Department, participa-



tion in ROTC is not a prerequisite to placing on the team; the ROTC Band, a select group of student musicians who provide military music for ROTC drill and ceremonies; the Campus Cadet, an organization that provides public information for the ROTC and publishes a bi-weekly mimeographed cadet newspaper; the Kaydeens, a group of young ladies selected annually at the ROTC Queen selection ceremonies who act as uniformed sponsors for the Cadet Corps. This is the only uniformed service organization on the ISC campus; the Military Ball, a student organized and operated formal held annually in the fall semester, at this time the ROTC Queen is crowned and the members of her court, all chosen by the vote of the Cadet Corps, are presented; The ROTC also sponsors an active awards program and an annual visit to a military installation for members of the corps who are qualified and interested in such a visit; all intramural sports are represented by at least one ROTC team; a Cadet Movie Hour is operated twice weekly during the winter months for the entertainment and education of interested cadets.

Membership in these activities are open to all interested Cadets on a voluntary basis.

The Music Education Department sponsors many organizations: The College Choir, the Women's Chorus, the Indiana Glee Club, The Mixed Chorus, the Marching Band, the College Symphonic Band, the College Symphony Orchestra, the String Orchestra, the Mellow Men, the Music Educators Club, and a Student Chapter of the Music Educators National Conference. In addition, there are many ensembles which are activated from time to time to provide music for specific occasions.

The Science Department sponsors the Science Club, an all-college club for those interested in Science. Membership includes students from practically all departments of the college, though naturally the Science Department is more strongly represented than any other department. Programs are provided by local talent or speakers from the outside. Outings and special trips as well as reports on special projects are included in the activities.

The Social Science Department sponsors the Social Science Society, which is concerned with political, economic and social issues at the local and national level. Affairs of the club are culminated each year by its participation in the Inter-Collegiate Conference on Government at Harrisburg. The department also sponsors the International Relations Club, which is concerned with international affairs, and sends a delegation each year to the Middle States Model United Nations Assembly.

The Physical Education Department encourages the formation of sports clubs for those students who are interested in a particular sport.

**Men's Varsity "I."** The Varsity "I" Club is made up of members who have the distinction of winning at least one varsity "I"

letter. The chief purpose of the club is to promote and foster good fellowship, sportsmanship, and a friendly feeling of cooperation among the athletes of this and rival colleges.

**Women's Athletic Association Board.** This group is composed of girls who have shown by participation, an interest in athletics. It organizes records of all candidates for awards and promotes extra-college and professional contacts for its own members.

**Women's Athletic Association (Intramural Sports).** The women's athletic activities provide opportunity for college women to practice and improve the skills and strategy learned in the required physical education program. The activities include volleyball, field hockey, tennis, badminton, archery, basketball, table tennis, bowling, softball and swimming. Each activity is set up in either round robin or double elimination tournaments and extends approximately over an eight-week period. Intercollegiate Sports Days occasionally permit women to compete with other colleges. This opportunity to be hosts to visiting teams and guests at other colleges provides desirable social and educational experiences.

**Men's Intramural Sports.** A well-organized and varied program of sports and athletics is incorporated in the intramural program for men. The program includes the following sports: archery, badminton, tennis, ping pong, wrestling, swimming, track, basketball, volleyball, football (touch), softball, speedball, soccer and other outdoor winter sports.

**Women's Intramural Sports.** The women's athletic activities provide opportunity for college women to learn a variety of sport skills. Each activity, including instruction, practice, and competition extends approximately over a nine-week period. Intercollegiate Sports Days occasionally permit women to compete with other colleges. This opportunity to be hosts to visiting teams and guests at other colleges provides desirable social and educational experiences.

**Varsity Athletics.** A well rounded program of varsity athletics is provided for the student interested in football, basketball, baseball, tennis, track, wrestling, and golf.

**Red Cross Lifesaving and Swimming.** The college cooperates with the American Red Cross in conducting lifesaving and swimming classes in the college pool. Many students earn their Senior and Instructor's certificates in Lifesaving. This enables these students to work in summer camps and city pools as lifesavers.

**Foreign Film Society.** This group is composed of students from all departments who are interested in showing and studying the better foreign films. A regular schedule of foreign films is presented to interested students on campus.

**Girls' Rifle Club.** This group is composed of women who are interested in this activity. The facilities of the College Rifle Range are made available, and coaching is provided by the ROTC staff.

**Indiana College Slide Society.** This organization is open to all students and faculty who are interested in colored slide photography. Monthly meetings are held, and every effort is made to improve the technical proficiency of its members.

**Winter Sports Club.** The Winter Sports Club is open to all interested students who wish to participate in winter sports. Skating, skiing, tobogganing, and sled riding are activities scheduled for this group throughout the winter months. The facilities of the College Lodge make the enjoyment of winter sports a popular program. In 1963, a 700 foot ski tow will be put into operation at the College Lodge which will greatly increase the popularity of this sport.

**The Home Economics Department** sponsors a Freshman and an upper class Home Economics Club. Both are affiliated with the Pennsylvania and the American Home Economics Association. Delegates are sent to the regional workshop and to state and national conventions. Department majors join and work in the clubs as a preparation for such responsibilities as Future Homemakers of America organizations when teaching. Through club and other department activities such as Merry-Go, High School Day, etc. students gain experience in leadership. The Campus 4-H Club is composed of college students who were formerly members of 4-H Clubs. This organization is also a part of the Home Economics Department program.

### STUDENT PSEA - NEA

The Indiana Chapter of the STUDENT PSEA - NEA (Pennsylvania State Education Association and the National Education Association) is a professional organization for students enrolled in teacher education programs. Affiliation with the STUDENT PSEA - NEA offers professional experiences, opportunities to develop leadership skills, and an understanding of professional education at the state and national levels. As an organization, the STUDENT PSEA - NEA should deepen the interest of capable students in teaching as a career; encourage the careful selection and guidance of persons admitted to teacher education programs; and, through higher standards of preparation contribute to better education programs.

### CLASS ORGANIZATIONS

Each of the four classes — Freshman, Sophomore, Junior, and Senior — has a class organization, holds social and professional meetings, and sponsors a formal dance each year.

### FRATERNITIES

**Honorary Fraternities.** The Beta Gamma Chapter of Kappa Delta Pi, an educational honor fraternity open to both men and women, was inaugurated in 1928. Only juniors and seniors of high

scholastic attainment are eligible to membership. Pi Omega Pi, an honorary national fraternity for men and women in business education, is represented on the campus by Kappa Chapter, formed in 1929. Beta Chapter of Gamma Rho Tau, an honorary fraternity for men in business education, was organized in 1929. The Tau Chapter of Kappa Omicron Phi, a national honorary home economics sorority, was established on the campus in June, 1940. The Alpha Lambda Chapter of Delta Phi Delta, a national honorary art fraternity, was installed on the campus March 30, 1946. Alpha Omega Gamma is a local honorary fraternity in geography, organized in 1927. Sigma Alpha Eta, a national professional speech and hearing fraternity, was installed at the college in 1952. Alpha Psi Omega, a national honorary dramatic fraternity, was installed at Indiana in 1953. Zeta Tau Chapter of Phi Mu Alpha Sinfonia, national honorary professional music fraternity for men, was installed May 21, 1953. The Delta Sigma Chapter of Delta Omicron, a national professional music fraternity for women, was installed March, 1953. Phi Sigma Phi, a national honorary fraternity for students majoring in mathematics, was installed on the Indiana campus in 1961. Pi Gamma Mu, a national professional social studies fraternity, was installed on the Indiana campus in December, 1962.

**Social Fraternities.** The college believes that fraternities afford opportunities to young men and women for maintaining scholarship, for developing social poise, and for contributing to the life of the campus, of the community, and of the world at large. Therefore the college encourages the formation of enough fraternity chapters on campus so that every man and every woman who cares to belong to one may have the opportunity.

**Men's Fraternities.** Seven national fraternities have chapters at Indiana. The following fraternities are in operation.

1. Beta Lambda Chapter of Theta Xi, was installed at Indiana on October 28, 1961. It was originally a local fraternity, Delta Gamma Phi, organized in April, 1957.

2. Gamma Pi Chapter of Delta Sigma Phi became a national social fraternity on April 26, 1953. It was organized originally as a local fraternity in December, 1950.

3. The Omega Chapter of Kappa Delta Rho, became a national social fraternity on April 24, 1955. It was organized originally as a local fraternity in February, 1952.

4. Xi Chapter of Sigma Phi Epsilon, a national social fraternity, was established on January 5, 1932. Between this date and 1909 it had been both a local and a national professional fraternity under other names.

5. The Pi Chapter of Sigma Tau Gamma, a national educational and social fraternity, was established on November 8, 1930.

6. Delta Rho Chapter of Tau Kappa Epsilon, a national social fraternity, was established January 30, 1955. This group was originally organized as Phi Alpha Zeta in 1929. Prior to that date it was known by another name, having been established as a fraternal group on June 4, 1908.

7. Epsilon Eta Chapter of Theta Chi, was installed at Indiana on November 2, 1957. It was originally a local fraternity, Delta Sigma Nu, organized in 1949.

**Inter-fraternity Council.** This group is composed of the president, and another member of each of the seven social fraternities operating on the campus. Its purpose is to promote understanding and cooperation among the fraternal groups and to regulate inter-fraternity affairs.

**Women's Fraternities.** Nine national women's fraternities have chapters on the campus: Alpha Sigma Alpha, Alpha Sigma Tau, Beta Sigma Omicron, Delta Zeta, Phi Mu, Sigma Kappa, Sigma Sigma Sigma, Zeta Tau Alpha, and Alpha Gamma Delta. There is one local chapter, Omega Phi.

**Panhellenic Council.** The Panhellenic Council is composed of eighteen representatives, two representatives from each fraternity and a faculty adviser. The purposes of the Panhellenic Council are: to promote a spirit of friendship and cooperation among the fraternities of the college; to encourage chapters to support all campus activities that promote the welfare of the fraternities and of the college; and to regulate matters of common welfare to the fraternities.

**Service Organizations.** Two national service organizations are active for men on the Indiana campus. Alpha Phi Omega, a national men's fraternity composed of men associated with the Boy Scout organization, has an active chapter on the Indiana campus. The Circle K, a service organization for men associated with the International Kiwanis Club, has been active on the Indiana campus for several years.

## ENROLLMENT BY CURRICULA

First Semester 1962-63

	Men	Women	Total	Total By Curricula
<b>SCHOOL OF EDUCATION</b>				
Elementary Curriculum:				
First Year .....	20	209	229	
Second Year .....	24	219	243	
Third Year .....	23	183	206	
Fourth Year .....	20	160	180	
			<hr/>	858
Secondary Curriculum:				
First Year .....	360	222	582	
Second Year .....	367	220	587	
Third Year .....	175	93	268	
Fourth Year .....	247	124	371	
			<hr/>	1808
Art Curriculum:				
First Year .....	23	44	67	
Second Year .....	16	46	62	
Third Year .....	21	31	52	
Fourth Year .....	20	28	48	
			<hr/>	229
Business Curriculum:				
First Year .....	71	58	129	
Second Year .....	75	47	122	
Third Year .....	42	30	72	
Fourth Year .....	28	24	52	
			<hr/>	375
Home Economics Curriculum:				
First Year .....	0	96	96	
Second Year .....	0	79	79	
Third Year .....	0	64	64	
Fourth Year .....	0	52	52	
			<hr/>	291
Music Curriculum:				
First Year .....	22	17	39	
Second Year .....	33	27	60	
Third Year .....	14	16	30	
Fourth Year .....	20	14	34	
			<hr/>	163
Public School Nursing:				
Third Year .....	0	1	1	
Fourth Year .....	0	1	1	
			<hr/>	2
Dental Hygienist:				
Fourth Year .....	0	1	1	
			<hr/>	1
TOTAL — School of Education				<hr/> 3727

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SCHOOL OF LIBERAL ARTS .. .	57	15	72	
			<hr/>	72
PUNXSUTAWNEY CENTER . . . . .	26	25	51	
			<hr/>	51
NURSES, INDIANA HOSPITAL .....		22	22	
			<hr/>	22
GRAND TOTAL — Full Time Students				<hr/> 3872

## ENROLLMENT BY COUNTIES

School of Education, School of Liberal Arts, Punxsutawney Center

First Semester 1962-63

County	Total	County	Total
Adams .....	3	Lancaster .....	10
Allegheny .....	957	Lawrence .....	47
Armstrong .....	205	Lebanon .....	5
Beaver .....	137	Lehigh .....	3
Bedford .....	18	Luzerne .....	1
Berks .....	14	Lycoming .....	1
Blair .....	130	McKean .....	38
Bradford .....	0	Mercer .....	58
Bucks .....	11	Mifflin .....	3
Butler .....	93	Monroe .....	0
Cambria .....	351	Montgomery .....	12
Cameron .....	7	Montour .....	0
Carbon .....	1	Northampton .....	5
Centre .....	22	Northumberland .....	2
Chester .....	2	Perry .....	1
Clarion .....	10	Philadelphia .....	4
Clearfield .....	75	Pike .....	0
Clinton .....	4	Potter .....	0
Columbia .....	0	Schuylkill .....	2
Crawford .....	45	Snyder .....	3
Cumberland .....	23	Somerset .....	90
Dauphin .....	11	Sullivan .....	0
Delaware .....	11	Susquehanna .....	0
Elk .....	27	Tioga .....	5
Erie .....	44	Union .....	0
Fayette .....	43	Venango .....	26
Forest .....	3	Warren .....	17
Franklin .....	7	Washington .....	67
Fulton .....	0	Wayne .....	1
Greene .....	5	Westmoreland .....	476
Huntingdon .....	21	Wyoming .....	0
Indiana .....	574	York .....	14
Jefferson .....	104		
Juniata .....	2	Total Pennsylvania Students .....	3,854
Lackawanna .....	3	Out-of-State Students .....	18
		Total .....	3,872

### SUMMARY OF FIRST SEMESTER 1962-63 ENROLLMENT

Full-Time Students	School of Education .....	3,727	
	School of Liberal Arts .....	72	
	Punxsutawney Center .....	51	
	Nurses, Indiana Hospital .....	22	
			3,872
Part-Time Students	Undergraduate .....	225	
	Graduate Studies .....	518	
			743
<hr/>			
TOTAL COLLEGE ENROLLMENT			
	FIRST SEMESTER 1962-63 .....		4,615



## PROGRAMS OF STUDY

Students at Indiana State College may pursue programs of study in the School of Liberal Arts leading to the degree of Bachelor of Arts or in the School of Education leading to the degree of Bachelor of Science in Education. In either case the student must earn 128 semester hours with a "C" average and must meet all other degree requirements of his or her undergraduate college for graduation.

## DEPARTMENTAL ABBREVIATIONS

The following departmental abbreviations are used to identify courses referred to in this catalog.

Art—Art	HPe—Health & Physical Education
Biol—Biology	Math—Mathematics
Bus—Business	MS—Military Science
Chem—Chemistry	Mus—Music
Ed—Education	Phil—Philosophy
E.Sci—Earth Science	Phys—Physics
El—Elementary	Psy—Psychology
EngS—English-Speech	PSN—Public School Nursing
Fr—French	Rus—Russian
Geog—Geography	Sci—Science
Ger—German	SS—Social Studies
HE—Home Economics	Sp—Spanish
	SpH—Speech and Hearing

## Key For Course Numbers

Courses for freshmen are numbered in the 100's, sophomores in the 200's, juniors in the 300's and seniors in the 400's.

Required courses are numbered between 1 and 50 and elective courses are numbered between 51 and 100, within each 100.

Elective courses open to sophomores, juniors, and seniors are listed in the 200's. Elective courses open to juniors and seniors are listed in the 300's.

## General Education

The primary objective of general education is to develop those understandings, attitudes and values, and social skills that will enable the student to enjoy a life that is satisfying to himself as an individual and which will enable him to play a constructive role in his community and in society without respect to his professional or vocational interest or activity.

The following program in general education will be taken by all students in both the School of Liberal Arts and the School of Education. The courses in this program will be distributed throughout the four years of college study. Only basic or introductory courses in the program will be concentrated in the first two years of the student's program.

Required of all students		55 sem. hrs.
Humanities		24 sem. hrs.
EngS 101 and 102 Communications I and II	10	
EngS 301 Introduction to Literature	2	
Art 101 Introduction to Art or		
Mus 101 Introduction to Music	3	
SS 410 Anthropology or		
Phil 420 Introduction to Philosophy	3	
Fr 101 and 102 French I and II or		
Fr 201 and 202 French III and IV or		
equivalents in Spanish, German or Russian	6	
Natural Sciences		12 sem. hrs.
Math 101 Foundations of Mathematics	4	
Sci 103 and 104 General Biology I and II or		
Sci 105 and 106 Physical Science I and II	8	
Social Sciences		15 sem. hrs.
Geog 101 World Geography	3	
Psy 201 General Psychology	3	
SS 202 History of Civilization II	3	
SS 302 History of U. S. & Pa. II	3	
SS 401 American Citizenship	3	
Health and Physical Education		4 sem. hrs.
HPE 101 Health	2	
HPE 102 and 203 Physical Education I and II	2	

A student may not be required to take an introductory course in this program which falls within his major field or area of concentration. In this case he may begin his study in the major or concentration with the first course in that field. Such substitutions or modifications in the general education program may be made by the student in consultation with his or her adviser.

## THE SCHOOL OF LIBERAL ARTS

WILLIAM W. HASSLER, Dean

The program of studies in the School of Liberal Arts is designed to enable the student to pursue a general program, a study in depth within a chosen subject, an inter-disciplinary program or a pre-professional program of study. All students in this school are required to take the program of general education of 55 semester hours as outlined on page 62. Each student must elect to pursue a major of 36 semester hours in the Humanities, Natural Sciences or the Social Sciences. The remaining 37 semester hours required for graduation may be used to pursue a concentration within a particular subject or in accordance with a plan agreed upon by the student and his adviser.

### Fields of Major Study and Concentration

The three fields in which students may pursue major studies are the Humanities, Natural Sciences and the Social Sciences. The minimum semester hours requirement in each field is thirty-six. The student may use his remaining thirty-seven semester hours to pursue the study of a particular subject as a concentration within his or her major field. Or the student may elect to use these credits to extend his study within his entire major field.

Humanities Major		36 sem. hrs.
English		6 sem. hrs.
EngS 214 Shakespeare	3	
EngS 251 History of the English Language	3	
Speech and Theater		6 sem. hrs.
EngS 232 Oral Reading	3	
EngS 238 The Nature of Drama	3	
Foreign Language		6 sem. hrs.
Fr 361-362 Development of French Culture and Literature I and II - Or similar courses in Spanish, German and Russian	6	
Art		6 sem. hrs.
Art 115 Art History I - to 1500	3	
Art 116 Art History II - since 1500	3	
Music		6 sem. hrs.
Mus 302 Music History II	3	
Mus 303 Music History III	3	
Philosophy		6 sem. hrs.
Phil 421 Logic	3	
Phil 422 Ethics	3	

Within this major field of the Humanities the student may pursue a concentration of study in any one of the following subjects - Fine Art, English, French, German, Spanish, Russian, Music, Speech and Theater, and Philosophy. The course requirements for such a concentration and the sequence according to which the courses may be taken are to be determined by the students' adviser.

Natural Science Major		36 sem. hrs.
Mathematics		9 sem. hrs.
Math 157 Mathematical Analysis III	4	
Math 257 Mathematical Analysis IV	5	
Biological Science		8 sem. hrs.
Biol 121 Zoology I	4	
Biol 122 Zoology II	4	
Chemistry		8 sem. hrs.
Chem 111 Chemistry I	4	
Chem 112 Chemistry II	4	
Physics		8 sem. hrs.
Phys 111 Physics I	4	
Phys 112 Physics II	4	
Earth Science		3 sem. hrs.
E Sci 211 Astronomy or E Sci 221 Geology	3	

Within this major field of the Natural Sciences the student may pursue a concentration of study in any one of the following subjects - Biology, Chemistry, Earth Science, Mathematics and Physics. The course requirements for such a concentration and the sequence according to which the courses may be taken will be determined by the students' adviser.

Social Science Major		36 sem. hrs.
History		6 sem. hrs.
SS 201 History of Civilization I	3	
SS 301 History of U. S. and Pa. I	3	
Political Science		6 sem. hrs.
SS 357 International Relations	3	
SS 358 Contemporary Political Problems	3	
Economics		6 sem. hrs.
SS 240 Principles of Economics	3	
SS 342 Contemporary Economic Problems	3	
Anthropology - Sociology		6 sem. hrs.
SS 251 Principles of Sociology	3	
SS 331 Contemporary Social Problems	3	
Geography		6 sem. hrs.
Geog 149 Economic Geography	3	
Geog 251 Geography of U. S. and Canada	3	
Psychology		6 sem. hrs.
Psy 352 Mental Hygiene	3	
Psy 452 Social Psychology	3	

Within this major field of the Social Sciences the student may pursue a concentration of study in any one of the following subjects - Anthropology - Sociology, Economics, Geography, History, Political Science and Psychology. The course requirements for such a concentration and the sequence according to which these courses should be taken will be determined by the students' adviser.

### Inter-disciplinary Studies

While provision is made for the student to use his or her fifty-seven free elective hours to pursue the study of a particular subject in depth he or she will not be required to do so. The student with a major in the Natural Sciences may wish to take additional courses in the Humanities or in the Social Sciences beyond those that are required in the field of General Education. A student with a major in the Natural Sciences or the Social Sciences may wish to use some of his elective credits to pursue his interest in Art or Music by taking additional work in these subjects. The pursuit of a program of study within a culture area such as Latin America will require the selection of courses in History, Language, Geography, Art, Literature and Political Science from both the Humanities and the Social Sciences. An inter-disciplinary program of study must be planned by the student in consultation with his adviser and must be approved by the Dean of the School of Liberal Arts and the students' adviser.

### Pre-Professional Studies

Indiana State College is accredited not only by the National Council for Accreditation of Teacher Education but by the Middle States Association of Colleges and Secondary Schools as well. It is on the basis of the latter accreditation that pre-professional programs of study are offered for admission to Medical, Dentistry, Engineering and Law Colleges. These pre-professional programs of study must be outlined and approved by the Dean of the School of Liberal Arts.

## THE SCHOOL OF EDUCATION

GEORGE A. W. STOUFFER, Dean

The program of studies in the School of Education is designed to enable the student to pursue a program of study in general education, a program of major study within an academic or special field, and a program of professional education that will qualify the student for certification to teach in the public schools of the Commonwealth of Pennsylvania. Students who meet all of the requirements for graduation from this school will be granted the Provisional College Certificate to teach the subjects within their respective fields of major study.

### General Education

All students in the School of Education are required to take the same program of 55 semester hours in general education as is required of all students in the School of Liberal Arts. This program in general education may be found on page 62.

### Professional Education and Certification

Certification standards, established by the Department of Public Instruction and the State Council on Education, require work in the field of professional education. In accordance with these standards all students in the School of Education are required to take the following courses in professional education — History and Philosophy of American Education, Education Psychology, Audio-Visual Education and one or more methods courses within their major field of academic study or specialization. In addition all students in this school are required to do a semester of student teaching under the supervision of a co-operating teacher and a college supervisor. Professional Practicum, including School Law, is taken as a part of the student teaching experience. The professional education requirement amounts to approximately 28 semester hours within the 128 semester hours required for graduation.

The College Provisional Certificate is issued to the beginning teacher upon graduation from this school. The Provisional College Certificate can be made permanent upon the completion of from three to six years of successful teaching during which period the teacher must have taken twenty-four semester hours of additional college work. These credits may be earned at either the undergraduate or graduate level.

### Fields of Major Study

The School of Education offers programs of major study leading to certification in the following academic fields —

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Biology	German
Chemistry	History
Earth Science	Mathematics
Earth and Space Science	Physics
English and Speech	Russian
French	Social Science
General Science	Spanish
Geography	

The School of Education offers programs of major study leading to certification in the following special fields —

Art	Public School Nursing
Business	Music
Dental Hygiene	Speech and Hearing Correction
Education for Safe Living	Special Education for the
Home Economics	Mentally Retarded

The required courses in the foregoing fields and the sequence in which they are to be taken are indicated on the following pages.

## ART

ORVAL KIPP, Chairman

## FIRST SEMESTER

	Hours	
	Clock	Sem.
EngS 101 Communication I _____	5	5
Sci 101 Biology or		
Sci 103 Physical Science _____	6	4
FL 111 Foreign Language _____	3	3
Geog 101 World Geography _____	3	3
Art 111 Drawing, All Media _____	4	2
	—	—
	21	17

## THIRD SEMESTER

Math 101 Foundations of Math _____	4	4
Psy 201 General Psychology _____	3	3
HPE 102 Physical Education or _____	2	1
MS 102 Military Science _____	3	2
Art 113 Color and Design _____	4	2
Art 116 Art History II _____	3	3
Art 112 Composition and Figure		
Drawing _____	4	2
Art 213 Lettering Commercial Art &		
Illustration _____	6	3
	—	—
	26	18
	or	
	27	19

## FIFTH SEMESTER

SS 303 History of U.S. & Pa. II _____	3	3
Ed 302 History & Philosophy		
of American Education _____	3	3
Art 311 Arts & Crafts in		
Elementary Education _____	6	3
Art 313 Water Color & Mixed		
Media _____	6	3
Art 315 Pottery & Ceramics _____	6	3
Art 317 Art History III _____	6	3
	—	—
	30	18

## SEMESTER VII OR VIII

SS 451 Anthropology or		
Phil 420 Philosophy _____	3	3
Art 412 Graphic Arts _____	6	3
Art 216 Aesthetics _____	3	3
Elect any three of the following for _____	18	9
Art 451 Advanced Crafts		
Art 452 Advanced Ceramics		
Art 453 Advanced Sculpture		
Art 454 Advanced Painting		
Art 455 Advanced Commercial Art		
Art 457 Advanced Graphic Art		
Art 459 Architecture & Home		
Planning		
Art 460 Crafts Material for Activity		
Teaching		
Art 461 Art Material Experience for		
Creative & Mental Growth		
Art 462 Fabrics		
	—	—
	30	18

## SECOND SEMESTER

	Hours	
	Clock	Sem.
EngS 102 Communication II _____	5	5
Sci 102 Biology or		
Sci 104 Physical Science _____	6	4
FL 112 Foreign Language _____	3	3
HPE 101 Health or _____	2	2
MS 101 Military Science _____	3	2
Art 115 Art History I _____	3	3
	—	—
	19	17

or  
20 17

## FOURTH SEMESTER

SS 202 History of Civilization II _____	3	3
Mus 101 Introduction to Music _____	3	3
Psy 202 Educational Psychology _____	3	3
HPE 103 Physical Education II _____	2	1
Crafts in Elementary Education _____	4	2
Art 211 Mechanical Drawing &		
Industrial Design _____	4	2
Art 215 Craft in Metal & Wood _____	4	2
Art 214 Modeling & Sculpture _____	4	2
	—	—
	27	18

## SIXTH SEMESTER

SS 401 American Citizenship _____	3	3
Ed 301 Audio Visual Education _____	2	2
EngS 201 Introduction to		
Literature _____	2	2
Art 312 Arts & Crafts in Secondary		
Education _____	6	3
Art 312 Costume & Theatre Art _____	6	3
Art 314 Oil Color & Mixed Media _____	6	3
Art 316 Jewelry _____	4	2
	—	—
	29	18

## SEMESTER VII OR VIII

Ed 421 Student Teaching _____	30	12
Ed 422 Professional Practicum _____	2	2
	—	—
	32	14



## BUSINESS

## FIRST SEMESTER

	Hours	
	Clock	Sem.
HPe 101 Health .....	2	2
EngS 101 Communication I .....	5	5
Sci Biological Science (101) or Physical Science (102) .....	5	4
Fl Foreign Language (101 or 201) .....	3	3
Bus 101 Introduction to Business .....	2	1
Bus 131 Principles of Typewriting By Exam or .....	5	2

## SECOND SEMESTER

	Hours	
	Clock	Sem.
HPe 102 Physical Education I .....	2	1
EngS 102 Communication II .....	5	5
Sci Biological Science (101) or Physical Science (102) .....	5	4
Fl Foreign Language (102 or 202) .....	3	3
Bus 111 Foundations of Math (Bus) .....	4	4
Bus 132 Intermediate Typewriting .....	5	2

## THIRD SEMESTER

	Combined Seq.	Stenog. Seq.	Acct'g. Seq.	Selling Seq.
HPe 203 Physical Education II .....	2-1	2-1	2-1	2-1
Bus 221 Introduction to Accounting .....	5-3	5-3	5-3	5-3
Bus 271 Advanced Typewriting .....	5-2	5-2	5-2	5-2
Bus 212 Business Math II .....	3-3	3-3	3-3	3-3
Bus 261 Shorthand Theory .....	5-3	5-3	5-3	5-3
Psy 201 General Psychology .....	3-3	3-3	3-3	3-3
M/A 101 Introduction to Art or Music .....	3-3	3-3	3-3	3-3

## FOURTH SEMESTER

Bus 235 Business Law I .....	3-3	3-3	3-3	3-3
Bus 251 Intermediate Accounting .....	5-3	5-3	5-3	5-3
Bus 262 Shorthand Dictation .....	5-3	5-3	—	—
Geog 101 World Geography .....	3-3	3-3	3-3	3-3
Psy 302 Educational Psychology .....	3-3	3-3	3-3	3-3
SS 202 History of Civilization II .....	3-3	3-3	3-3	3-3
Bus 241 Business Organization & Finance (Elec.) .....	3-3	—	3-3	3-3

## FIFTH SEMESTER

Bus 321 Business Correspondence .....	3-3	3-3	3-3	3-3
Bus 311 Methods of Teaching Business Courses .....	3-3	3-3	3-3	3-3
Bus 336 Business Law II .....	3-3	3-3	3-3	3-3
Bus 331 Sales & Retailing .....	3-3	3-3	3-3	3-3
Bus 352 Corporate Accounting .....	3-3	—	3-3	—
Bus 363 Transcription .....	5-3	5-3	—	—
Bus 335 Clerical Practice & Office Machines .....	5-2	—	5-2	5-2
SS 303 History of U.S. & Pa. II .....	3-3	3-3	3-3	3-3

## SIXTH SEMESTER

Bus 312 Evaluative Techniques in Bus. Courses .....	3-2	3-2	3-2	3-2
Bus 335 Clerical Practice and Office Machines .....	5-2	5-2	—	—
Bus 353 Cost Accounting .....	3-3	—	3-3	—
Bus 454 Tax Accounting .....	3-3	—	3-3	—
Bus 332 Retail Management .....	3-3	—	—	3-3
Bus 364 Secretarial Office Practice .....	5-3	5-3	—	—
Ed 301 Audio-Visual Education .....	3-2	3-2	3-2	3-2
SS 401 American Citizenship .....	3-3	3-3	3-3	3-3
Bus 342 Consumer Economics (Elec.) .....	3-3	3-3	3-3	3-3
EngS 301 Introduction to Literature .....	2-2	2-2	2-2	2-2

## SEVENTH SEMESTER

Ed 302 History & Philosophy of Amer. Ed. ....	3-3	3-3	3-3	3-3
Bus 455 Auditing .....	3-3	—	3-3	—
Bus 415 Economics .....	3-3	2-3	3-3	2-3
Phil 420 Philosophy or SS 410 Anthropology .....	3-3	3-3	3-3	3-3
Bus 454 Tax Accounting .....	3-3	3-3	—	—
Bus 433 Retail Practice .....	6-6	—	—	6-6
Elective .....	3-3	3-3	3-3	3-3

## EIGHTH SEMESTER

Ed 421 Student Teaching .....	30-12	30-12	30-12	30-12
Ed 422 Professional Practicum .....	2-2	2-2	2-2	2-2

## BUSINESS

ALBERT E. DRUMHELLER, Chairman

Students may pursue the work of the entire curriculum or they may elect to pursue work according to their aptitudes, as follows:

1. The Complete Program leads to certification in all three fields, thus affording certification in all of the high school business subjects. Those who possess aptitudes that indicate success in stenographic, accounting, and retailing work may, if they wish, pursue this complete program.

2. A Combination Program combines either the Stenographic and Accounting, the Stenographic and Retailing, or the Accounting and Retailing Fields. All students planning to enter this Department should plan for graduation one of the three possibilities under this combination arrangement. School administrators who employ our graduates believe that a combination program is necessary for breadth of certification when teaching in the public schools of the Commonwealth.

3. The Stenographic Field includes all the courses of the curriculum listed under that heading. Elective courses may be chosen from any other department of the College.

4. The Accounting Field includes all of the courses of the curriculum listed under that heading. Elective courses may be chosen from any other department of the College.

5. The Retailing Field includes all of the courses of the curriculum listed under that heading. Elective courses may be chosen from any other department of the College.

**Practical Experience Requirements.** Before graduation, each student will be required to have completed the equivalent of six months of store practice, secretarial practice, bookkeeping practice, clerical practice, or a combination of these or other business contacts, acquired at places and under conditions approved by the chairman of this department. This experience preferably should be in the field or fields in which the student is contemplating certification. Much of this experience can be acquired during the summer vacations.

**Our Standards.** Only those students who attain "A" or high "B" standings, and whose aptitudes indicate success in the fields elected, should elect more than two fields.

To pursue the Complete Program a student must maintain at least a "C" average in all courses in the curriculum, and must have a grade of "C" or better in the following courses: Communication, Typewriting, Business Mathematics, Accounting and Shorthand.

## DENTAL HYGIENIST

GEORGE A. W. STOUFFER, *Director*

The Board of Presidents of the State Colleges approved on November 17, 1950, a curriculum for dental hygienists leading to the degree of bachelor of science in education. The requirements shown below must be met.

1. The satisfactory completion of an accredited two-year curriculum for the preparation of dental hygienists approved by the State Dental Council and Examining Board.
2. The licensing of the student by the proper state authorities.
3. The satisfactory completion in addition thereto of 64 semester hours of professional and general education courses distributed as follows:

## General Education ..... 36

EngS 101 and 102 Communication I and II ..... 10

EngS 301 Introduction to Literature ..... 2

Fine Arts ..... 3

Art 101 Introduction to Art or

Mus 101 Introduction to Music

Geography ..... 3

Geog 112 Geography of United States  
and Pa.

Social Studies

SS 201 and 202 History of Civilization

I &amp; II ..... 6

SS 401 American Citizenship

SS 252 Principles of Economics

SS 302 History of United States

and Pa. II

SS 251 Principles of Sociology

## Education ..... 14

Ed 302 Hist. &amp; Phil. of Am. Ed. .... 3

Psy 201 General Psychology ..... 3

Psy 302 Educational Psychology ..... 3

Psy 352 Mental Hygiene ..... 3

Ed 301 Audio-Visual Education ..... 2

## Electives ..... 14

Total ..... 64

In each category above, credit will be given for equivalent courses pursued in the two-year dental hygiene curriculum. In such cases students will be permitted to increase their electives by the number of semester hours so credited.

Electives may be chosen with the approval of the dean of instruction from any field or curriculum offered at the college in which the student is enrolled.

In the case of dental hygienists who have had less than two years of special training on the basis of which they have been licensed by the State Dental Council and Examining Board such persons will pursue additional courses in college to fulfill the requirements for the degree.

## EDUCATION FOR SAFE LIVING

JOHN CHELLMAN, Chairman

The State Council of Education approved this new certification January 9, 1948. The four courses below, Introduction to Safety Education, Driver Education, the Organization and Administration of Safety Education, and Methods and Materials in Safety Education in the Secondary Schools meet the requirements for certification with 12 semester hours. A temporary standard certificate is issued upon the completion of these courses and it becomes permanent after two years of successful experience in the field.

HPe 251 Introduction to Safety Education	3 cr.
HPe 252 Driver Education	3 cr.
HPe 253 Methods and Materials in Safety Education in the Secondary Schools	3 cr.
HPe 254 Organization and Administration of Safety Education	3 cr.

## SPECIAL EDUCATION

STANLEY LORE, Chairman

## Education for the Mentally Retarded

## FIRST SEMESTER

	Hours	
	Clock	Sem.
EngS 101 Communication I .....	5	5
Art 101 Introduction to Art or		
Mus 101 Introduction to Music .....	3	3
Sci 101 Basic Biology or		
Sci 102 Basic Physical Science .....	4	4
Geog 111 World Geography .....	3	3
HPE 101 Health or		
MS 101 Military Science .....	2	2
	—	—
	17	17

## SECOND SEMESTER

	Hours	
	Clock	Sem.
EngS 102 Communication II .....	5	5
Sci 101 Basic Biology or		
Sci 102 Basic Physical Science .....	4	4
Geog 112 Geog. of U.S. & Pa. ....	3	3
Math 111 Foundations of		
Mathematics .....	4	4
HPE 102 Physical Education I or		
MS 102 Military Science .....	2	1
	—	—
	18	17

## THIRD SEMESTER

SS 202 History of Civilization II .....	3	3
FL 101-201 Foreign Language I .....	3	3
HPE 103 Physical Education II .....	2	1
Psy 201 General Psychology .....	3	3
Ed 220 Introduction to Exception		
Children .....	3	3
Elective .....	3	3
	—	—
	17	16

## FOURTH SEMESTER

Psy 302 Educational Psychology .....	3	3
SS 301 History of U.S. & Pa. II .....	3	3
FL 101-102 Foreign Language II .....	3	3
SpH 112 Speech Problems .....	3	3
EngS 301 Introduction to Literature ..	2	2
Ed 232 Developmental Reading .....	3	3
	—	—
	17	17

## FIFTH SEMESTER

Psy 320 Psychology of the		
Mentally Retarded .....	3	3
Psy 352 Mental Hygiene .....	3	3
EI 211 Music for the Elementary		
Grades .....	3	3
SpEd 301 Reading and other		
Language Arts for the		
Mentally Retarded .....	3	3
Ed 305 Evaluation Methods .....	2	2
Elective .....	3	3
	—	—
	17	17

## SIXTH SEMESTER

Ed 302 History & Philosophy of		
American Education .....	3	3
Psy 215 Child Development .....	3	3
Ed 301 Audio-Visual Education .....	3	2
MusEd 310 Music for the		
Mentally Retarded .....	3	2
Art 330 Arts & Crafts for the		
Mentally Retarded .....	3	3
Elective .....	3	3
	—	—
	18	16

## SEVENTH SEMESTER

Phil 420 Introduction to Philosophy or		
SS 410 Introduction to Anthropology ..	3	3
SS 401 American Citizenship .....	3	3
HPE 411 Health & Physical Education		
for the Mentally		
Retarded .....	3	2
Ed 313 Teaching Mathematics in the		
Elementary School .....	3	3
Ed 431 Special Class Methods for		
the Mentally Retarded ..	3	3
Elective .....	3	3
	—	—
	18	17

## EIGHTH SEMESTER

Ed 321 Student Teaching .....	30	12
Ed 422 Professional Practicum and		
School Law .....	2	2
	—	—
	32	14

## TEACHING OF THE SPEECH AND HEARING HANDICAPPED

## FIRST SEMESTER

	Hours	
	Clock	Sem.
EngS 101 Communication I .....	5	5
Foreign Language I .....	3	3
Sci 101 Biological Science I or		
Sci 103 Physical Science I .....	5	4*
Geog 101 World Geography .....	3	3
HPe 101 Health Education .....	2	2
	18	17

## SECOND SEMESTER

	Hours	
	Clock	Sem.
EngS 102 Communication II .....	5	5
Foreign Language II .....	3	3
Sci 102 Biological Science II or		
Sci 104 Physical Science II .....	5	4*
HPe 102 Physical Education I .....	2	1
SpH 112 Speech Problems .....	3	3
	18	16

## THIRD SEMESTER

Art 101 Introduction to Art or		
Mus 101 Introduction to Music .....	3	3
Math 101 Fundamentals of Math .....	4	4
Psy 201 General Psychology .....	3	3
HPe 201 Physical Education II .....	2	1
SpH 211 Phon. for Clin. ....	3	3
SpH 221 Hearing Problems .....	3	3
	18	17

## FOURTH SEMESTER

SS 202 History of Civilization .....	3	3
Psy 302 Educational Psychology .....	3	3
SpH 251 Anat. Phys. SpH Mech. ....	3	3
Psy 351 Intro. to Exc. Child .....	3	3
El 222 Teaching of Reading .....	3	3
SpH 253 Artic. Disorders .....	3	3
	18	18

## FIFTH SEMESTER

EngS 301 Intro. to Literature .....	2	2
SS 302 Hist. of U.S. & Pa. II .....	3	3
El 313 Teaching Arithmetic .....	3	3
SpH 321 Psych. SpH Hand. Ch. ....	3	3
SpH 311 Sp. Read. & Aud. Tr. ....	3	3
SpH 322 SpH Clinic I .....	4	2
	18	16

## SIXTH SEMESTER

Ed 301 Audio-Visual Education .....	3	2
Ed 302 Hist. & Phil. Am. Ed. ....	3	3
SpH 351 Speech Pathology .....	3	3
SpH 352 Stuttering .....	3	3
Psy 352 Mental Hygiene .....	3	3
SpH 353 SpH Clinic II .....	4	2
	19	16

## SEVENTH OR EIGHTH SEMESTER

SS 410 Intro. to Anthro. or		
Phil 420 Intro. to Phil. ....	3	3
SS 401 American Citizenship .....	3	3
Ed 305 Evaluation Methods .....	2	2
SpH 411 Org. & Adm. ....		
SpH Program** .....	3	3
SpH 421 SpH Clinic III .....	4	2
Psy 215 Child Development .....	3	3
	18	16

## SEVENTH OR EIGHTH SEMESTER

Ed 421 Student Teaching .....	30	12
Ed 422 Professional Practicum &		
School Law .....	2	2
	32	14

\*Eight hours of either Biological Science or Physical Science must be scheduled.

\*\*Satisfies professional education requirement for methods course in major field.

## ELEMENTARY EDUCATION

P. DAVID LOIT, Chairman

## FIRST SEMESTER

			Hours	
			Clock	Semester
EngS	101	Communication I	5	5
Art	101	Introduction to Art or		
Mus	101	Introduction to Music	3	3
Sci	101	Basic Biology or		
Sci	102	Basic Physical Science	4	4
Geog	111	World Geography	3	3
HPe	101	Health or		
MS	101	Military Science	2	2
			<hr/>	<hr/>
			17	17

## SECOND SEMESTER

			Hours	
			Clock	Semester
EngS	102	Communication II	5	5
Sci	101	Basic Biology or		
Sci	102	Basic Physical Science	4	4
Geog	112	Geography of United States and Pennsylvania	3	3
Math	111	Foundations of Mathematics	4	4
HPe	102	Physical Education I or		
MS	102	Military Science	2	1
			<hr/>	<hr/>
			18	17

## THIRD SEMESTER

			Hours	
			Clock	Semester
SS	202	History of Civilization II	3	3
		Foreign Language	3	3
HPe	103	Physical Education II	2	1
El	211	Music for the Elementary Grades	3	2
El	213	Art for the Elementary Grades	3	2
El	222	Teaching of Reading	3	3
El	313	Teaching of Arithmetic	3	3
			<hr/>	<hr/>
			20	17

## FOURTH SEMESTER

			Hours	
			Clock	Semester
SS	301	History of United States and Pennsylvania I	3	3
Psy	201	General Psychology	3	3
		Foreign Language	3	3
El	221	Children's Literature	3	3

El	212	Teaching of Music in the Elementary Grades	3	3
El	214	Teaching of Art in the Elementary Grades	3	3
			<hr/>	<hr/>
			18	18

## FIFTH OR SIXTH SEMESTER

			Hours	
			Clock	Semester
SS	302	History of United States and Pennsylvania II	3	3
Ed	302	History and Philosophy of American Education	3	3
Psy	302	Educational Psychology	3	3
El	314	Teaching of Health and Physical Education	3	2
		Electives	5	5
			<hr/>	<hr/>
			17	16

## FIFTH OR SIXTH SEMESTER

			Hours	
			Clock	Semester
EngS	301	Introduction to Literature	2	2
El	312	Teaching of Elementary Science	3	3
Psy	215	Child Development	3	3
Ed	321	Student Teaching	15	6
			<hr/>	<hr/>
			23	14

## SEVENTH OR EIGHTH SEMESTER

			Hours	
			Clock	Semester
Phil	420	Introduction to Philosophy or		
SS	410	Introduction to Anthropology	3	3
SS	401	American Citizenship	3	3
Ed	301	Audio-Visual Education	3	2
Ed	305	Evaluation Methods	2	2
		Electives	5	5
			<hr/>	<hr/>
			16	15

## SEVENTH OR EIGHTH SEMESTER

			Hours	
			Clock	Semester
El	411	Teaching of Social Studies	3	3
El	413	Teaching Language Arts	3	3
Ed	422	Professional Practicum including School Law	2	2
Ed	421	Student Teaching	15	6
			<hr/>	<hr/>
			23	14



## ENGLISH-SPEECH

JAMES R. GREEN, Chairman

## FIRST SEMESTER

	Hours	
	Clock	Sem.
EngS 101 Communication I _____	5	5
Sci 101 Biological Science I or _____	5	4
Sci 103 Physical Science I _____	5	4
Foreign Language I _____	3	3
Geog 101 World Geography _____	3	3
HPE 101 Health or _____	2	2
MS 101 Military Science _____	3	2
	—	—
	18	17
	or	
	19	17

## SECOND SEMESTER

	Hours	
	Clock	Sem.
EngS 102 Communication II _____	5	5
Sci 102 Biological Science II or _____	5	4
Sci 104 Physical Science II _____	5	4
Foreign Language II _____	3	3
Art 101 Intro. to Art or _____	3	3
Mus 101 Intro. to Music _____	3	3
HPE 102 Physical Education I or _____	2	1
MS 102 Military Science _____	3	2
	—	—
	18	16
	or	
	19	17

## THIRD SEMESTER

EngS 211 World Literature _____	3	3
Math 101 Foundation of Math. _____	4	4
EngS 211 Am. Lit. to 1865 _____	3	3
HPE 203 Physical Ed. II or _____	2	1
HS 203 Military Science _____	3	2
EngS 232 Oral Reading _____	3	3
Elective _____	3	3
	—	—
	18	17
	or	
	19	18

## FOURTH SEMESTER

EngS 231 The Dramatic Arts _____	3	3
SS 202 Hist. of Civilization II _____	3	3
Psy 201 Gen. Psychology _____	3	3
Elective _____	9	9
	—	—
	18	18

## SIXTH SEMESTER

EngS 363 The Structure of Eng. _____	3	3
Ed 302 Hist. & Philosophy of Ed. _____	3	3
Elective _____	9	9
	—	—
	15	15

## FIFTH SEMESTER

SS 302 Hist. of U.S. & Pa. _____	3	3
Psy 302 Educational Psy. _____	3	3
EngS 221 Journalistic Writing or _____	3	3
EngS 223 Creative Writing _____	3	3
Ed 301 Audio Visual Ed. _____	3	2
Elective _____	6	6
	—	—
	18	17

## EIGHTH SEMESTER

Ed 421 Student Teaching _____	30	12
Ed 422 Professional Practicum & School Law _____	2	2
	—	—
	32	14

## SEVENTH SEMESTER

Ed 451 The Teaching of English and Speech in Sec. School _____	3	3
SS 410 Anthropology or _____	3	3
Phil 420 Philosophy _____	3	3
SS 401 Am. Citizenship _____	3	3
Elective _____	9	9
	—	—
	18	18

## FOREIGN LANGUAGES

EDWARD W. BIEGLER, Chairman

A student at Indiana is required to complete two semesters of a foreign language which he may choose from French, German, Latin, Russian, and Spanish. If he has had two or three years of one of these languages in high school and wishes to continue with the same language, he should program the sequence 201-202. If he has had no language in high school or wishes to begin a new language in college, he should program French, German, Russian, or Spanish 101-102.

### Specialization in a Foreign Language

A student may work for certification in French, German, Russian, or Spanish. It is assumed that he will have had at least two years in high school in the language of his choice. He will then begin with the sequence 251-252 and will take concurrently with those courses 053-054, Oral Practice III and IV. If he has not had the language of specialization in high school, he will begin with 151-152 and 051-052, Oral Practice I and II. A departmental major demands a minimum of 30 semester hours excluding 151-152 or the equivalent courses in high school. Certification requirements, which constitute a minor in this department, are 24 hours beyond the elementary sequence and satisfactory record in an examination administered by the Department of Public Instruction.

It is recommended that a student with a major in one foreign language complete at least the intermediate sequence in a second language, particularly if he is looking forward to graduate work. This may be extended to lead to satisfaction of requirements of certification in the second foreign language. The second language will normally be begun in the sophomore year or the preceding summer session.

### Language Laboratory

All courses titles which bear a number beginning with "0" are language laboratory courses conducted in the language laboratory, and demand independent laboratory work as a major part of preparation.

### The Pennsylvania-Valladolid Study in Spain Program

Indiana State College is charged by the Department of Public Instruction with the organization and administration of this Program for the benefit not only of Indiana students but also students in the other Pennsylvania State Colleges. The Program is designed primarily to improve the preparation of future teachers of Spanish. Students who participate in the Program will normally have completed the junior year. The Program runs annually from June to the end of the calendar year on the campus of the University of Valladolid, Spain, under the supervision of a staff member of this Department. A total of 30 hours may be earned in the areas of Spanish language, literature, and culture. For further details consult the current brochure.

## FIRST SEMESTER

S.II.

EngS 101 Communication I .....	5
Sci 101 Biological Science or .....	
Sci 103 Physical Science .....	4
Geog 101 World Geography .....	3
FL 251 Language III* .....	3
FL 053 Oral Practice III .....	2

## SECOND SEMESTER

S.II.

EngS 102 Communication II .....	5
Sci 102 Biological Science or .....	
Sci 104 Physical Science .....	4
HPe 101 Health .....	2
FL 252 Language IV .....	3
FL 054 Oral Practice IV .....	2

## THIRD SEMESTER†

Math 101 Fundamental of Math. ....	4
Art 101 Introduction to Art or .....	
Mus 101 Introduction to Music .....	3
HPe 102 Physical Education I .....	1
FL 351 Adv. Language .....	3
FL 361 Cult. and Lit. ....	3
Elective .....	

## FOURTH SEMESTER

SS 202 Hist. of Civilization II .....	3
Psy 201 General Psychology .....	3
HPe 203 Physical Education II .....	1
FL 352 Adv. Language .....	3
FL 362 Cult. and Lit. ....	3
Elective .....	

## FIFTH SEMESTER

EngS 301 Introduction to Literature .....	2
Psy 302 Educational Psychology .....	3
Ed 302 Hist. and Phil. of Amer. Educ. ....	3
Elective .....	

## SIXTH SEMESTER

SS 302 Hist. of U.S. and Pa. II .....	3
Ed 305 Eval. Methods .....	2
Ed 451 Teaching Foreign Language in .....	
Secondary Schools .....	3
Elective .....	

## SEVENTH SEMESTER

SS 410 Introduction to Anthropology or .....	
Phil 420 Introduction to Philosophy .....	3
SS 401 American Citizenship .....	3
Ed 301 Audio-Visual Education .....	2
Elective .....	

## EIGHTH SEMESTER

Ed 421 Student Teaching .....	12
Ed 422 Professional Practicum .....	2

\*If the student begins his language of specialization in College he will take the elementary sequences 151-152 and 051-052.

†If the student elects to minor in a second foreign language he should begin this program in his sophomore year, or the preceding summer session.

## GEOGRAPHY

THOMAS G. GAULT, Chairman

## FIRST SEMESTER

S.H.

EngS 101 Communication I .....	5
Sci 101-103 Biology or Physical Science .....	4
HPe 101 Health or .....	
MS 101 Military Science .....	2
Foreign Language .....	3
ESci 153 Physical Geography .....	3
.....	—
	17

## SECOND SEMESTER

S.H.

EngS 102 Communication II .....	5
Sci 102-104 Biology or Physical Science .....	4
Geog 154 Cultural Geography .....	3
Foreign Language Continued .....	3
HPe 102 Physical Ed. I or .....	
MS 102 Military Science .....	1-2
.....	—
	16-17

## THIRD SEMESTER

Math 111 Foundations of Math .....	4
HPe 204 Physical Education II .....	1
Geog 149 Economic Geography .....	3
ESci 246 Physiography .....	3
Psy 201 General Psychology .....	3
Elective .....	3
.....	—
	17

## FOURTH SEMESTER

SS 202 History of Civilization II .....	3
Art 101 Introduction to Art or .....	
Mus 101 Introduction to Music .....	3
Geog 251 U.S. and Canada .....	3
ESci 241 Climatology .....	3
Elective .....	3
.....	—
	15

## FIFTH SEMESTER

EngS 301 Introduction to Literature .....	2
Psy 302 Educational Psychology .....	3
SS 302 History of U.S. and Pa. II .....	3
Ed 302 History and Philosophy of .....	
American Education .....	3
Elective — Geography .....	6
.....	—
	17

## SIXTH SEMESTER

Ed 301 Audio-Visual Education .....	2
Ed 451 Teaching of Geography in .....	
Secondary Schools .....	3
Elective .....	12
.....	—
	17

## SEVENTH SEMESTER

SS 410 Anthropology or .....	
Phil 420 Philosophy .....	3
SS 401 American Citizenship .....	3
Ed 305 Evaluative Methods .....	2
Elective .....	8
.....	—
	16

## EIGHTH SEMESTER

Ed 421 Student Teaching .....	12
Ed 422 Professional Practicum and .....	
School Law .....	2
.....	—
	14

## HOME ECONOMICS

OPAL T. RHODES, Chairman

## FIRST SEMESTER

	Hours	
	Clock	Sem.
EngS 101 Communication I .....	5	5
English I (3-3) and		
Speech I (2-2)		
Foreign Language .....	3	3
HPe 101 Health .....	2	2
Sci 151 Physiology .....	4	3
HE 112 Clothing I		
Construction & Care .....	6	3
	<u>20</u>	<u>16</u>

## SECOND SEMESTER

	Hours	
	Clock	Sem.
EngS 102 Communication II .....	5	5
English II (3-3) and		
Speech II (2-2)		
Foreign Language .....	3	3
HPe 102 Physical Ed. I .....	2	1
Sci 102 Physical Science .....	4	3
HE 111 Foods I Meal Mgt. ....	6	3
HE 113 Management & Eq. ....	4	2-3
	<u>24</u>	<u>17-18</u>

## THIRD SEMESTER

Chem 151 Chemistry .....	5	3
HE 211 Foods II (Adv.) .....	6	3
Math 101 Foundations of Math .....	4	4
HPe 203 Phys. Ed. II .....	2	1
Mus 101-Art 101 Intro. to .....	3	3
HE 213 Princ. of Des. ....	4	2
	<u>24</u>	<u>16</u>

## FOURTH SEMESTER

Chem 152 Chemistry .....	5	3
HE 221 Nutrition .....	4	3
SS 202 History of Civilization II .....	3	3
HPe 204 Phys. Ed. III (First Aid) ..	2	1
Geog 101 World Geography .....	3	3
HE 213 Home Planning &		
Furnishing .....	4	3
	<u>21</u>	<u>16</u>

## FIFTH SEMESTER

Psy 201 General Psyc. ....	3	3
Ed 302 Hist. & Phil. of		
American Education .....	3	3
HE 411 Family Relations .....	3	3
HE 216 Clothing Selection .....	4	3
Sci 361 Microbiology .....	5	3
	<u>18</u>	<u>15</u>

## SIXTH SEMESTER

Psy 302 Educational Psychology .....	3	3
Ed 301 Audio-Visual Ed. ....	3	2
EngS 301 Intro. to Literature .....	3	3
SS 302 Hist. of U.S. & Pa. II .....	3	3
HE 314 Textiles .....	4	3
Psy 215 Child Dev. ....	3	3
	<u>19</u>	<u>17</u>

## SEVENTH SEMESTER

HE 415 Methods of Teaching		
HE Voc. ....	3	3
Ed 421 Professional Practicum .....	3	1
SS 410 Intro. to Anthropology or		
Phil 420 Intro. to Phil. ....	3	3
SS 401 American Citizenship .....	3	3
Elective .....	4	3
HE 315 Consumer Ec. &		
Family Finance .....	3	3
	<u>19</u>	<u>16</u>

## EIGHTH SEMESTER

Ed 421 Student Teaching .....	20	8
HE 414 Home Mgt. Res. ....	9	3
Ed 422 School Law .....	2	1
HE 412 Nursery School .....	7	2
HE 311 Family Health .....	2	1
	<u>40</u>	<u>15</u>

Sequence of courses subject to change for administrative purposes.

# SCHOOL FOOD SERVICE MANAGEMENT

OPAL T. RHODES, Chairman

## FIRST SEMESTER

	Hours	
	Clock	Sem.
EngS 101 Communication I .....	5	5
HE 113 Management & Equipment ....	4	2
HE 111 Food I Meal Mgt. ....	6	3
Sci 102 Physical Science .....	4	3
HPE 102 Physical Ed. I .....	2	1
Foreign Language .....	3	3
	—	—
	24	17

## SECOND SEMESTER

	Hours	
	Clock	Sem.
EngS 102 Communication II .....	5	5
HPE 101 Health .....	2	2
Geog 101 World Geography .....	3	3
Sci 115 Physiology .....	4	3
Art 101 Introduction to Art or		
Mus 101 Introduction to Music .....	3	2
Foreign Language .....	3	3
	—	—
	20	18

## THIRD SEMESTER

Math 101 Foundations of Math .....	4	4
Sci 173 Inorganic Chemistry .....	5	3
HE 211 Foods II (Adv.) .....	6	3
Psy 215 Child Development .....	3	3
HE 216 Clothing Selection .....	3	3
HPE 203 Phys. Ed. II .....	2	1
	—	—
	23	17

## FOURTH SEMESTER

Psy 201 General Psychology .....	3	3
Sci 277 Org. Bio. Chem. ....	5	3
HPE 204 Phys. Educ. III .....	2	1
SS 201 History of Civ. II .....	3	3
HE 212 Nutrition .....	4	3
HE 215 Home Planning &		
Furnishings .....	4	3
	—	—
	21	16

## FIFTH SEMESTER

Psy 302 Educational Psych. ....	3	3
HE 313 Food Service Mgt. ....	9	3
Sci 366 Microbiology (&		
Sanitation) .....	5	3
HE 414 Consumer Economics		
& Family Finance .....	3	3
HE 314 Textiles .....	4	2
SS 410-420 Intro. to Anthro. or		
Phil. ....	3	3
	—	—
	27	17

## SIXTH SEMESTER

Ed 301 Audio-Visual Ed. ....	3	2
HE 356 Food Service Adm. ....	3	3
Sci Chem Elective .....	5	3
EngS 301 Intro. to Literature .....	3	3
HE 364 Methods of Teaching .....	5	3
SS 302 Hist. of U.S. & Pa. II .....	3	3
	—	—
	22	17

## SEVENTH SEMESTER

HE 411 Family Relations .....	3	3
Ed 302 Hist. & Phil. of Am. Ed. ....	3	3
SS 401 American Citizenship .....	3	3
HE 360 Accounting for Food Service....	6	3
Elective .....	3	3
Ed 422 School Law .....	1	1
	—	—
	19	16

## EIGHTH SEMESTER

HE 361 School Food Service Exp. ....	20	6
HE 414 Home Mgt. (Residence) .....	9	3
HE 359 Food Purchasing .....	3	3
HE 358 Food Service Eq. & Layout....	3	3
	—	—
	35	15

# MATHEMATICS

JAMES E. MCKINLEY, Chairman

## FIRST SEMESTER

	Hours	
	Clock	Sem.
EngS 101 Communication I .....	5	5
†Math 152 Algebra and Trig. ....	5	5
*Phys 111 Physics I .....	4	4
HPe 101 Health or .....	2	2
MS 101 Military Science I .....	3	2
	—	—
	17	16
	or	
	18	16

## SECOND SEMESTER

	Hours	
	Clock	Sem.
EngS 102 Communication II .....	5	5
Math 157 Analytic Geom. & Calc. I ..	4	4
Phys 112 Physics II .....	4	4
HPe 102 Physical Education I or .....	2	1
MS 102 Military Science II .....	3	2
Intro. to Art or Mus. ....	3	3
	—	—
	18	17
	or	
	19	18

## THIRD SEMESTER

Math 257 Analytic Geom. & Calc. II. ..	4	4
Foreign Language .....	3	3
Geog 111 World Geography .....	3	3
HPe 203 Physical Education II or .....	2	1
MS 203 Military Science III .....	3	2
Math 375 Intro. to Modern Math .....	3	3
Elective .....	3	3
	—	—
	18	17
	or	
	18	18

## FOURTH SEMESTER

Math 375 Anal. Geom. & Calc. III ..	4	4
Foreign Language .....	3	3
Psy 201 General Psychology .....	3	3
SS 202 History of Civilization II .....	3	3
M.S. 204 Military Science IV .....	3	2
	—	—
	16	15

## FIFTH SEMESTER

EngS 301 Intro. to Literature .....	2	2
SS 302 History of U.S. & Pa. II .....	3	3
Math 355 Foundations of Geometry ..	3	3
Elective .....	9	9
	—	—
	17	17

## SIXTH SEMESTER

Ed 301 Audio-Visual Ed. ....	3	2
Psy 302 Educational Psychology .....	3	3
Ed 302 Hist. and Philosophy of Ed. ..	3	3
Elective .....	8	8
	—	—
	17	16

## SEVENTH SEMESTER

SS 410 Anthropology or .....		
Phil 420 Philosophy .....	3	3
Ed 305 Evaluative Methods .....	2	2
Ed 451 Teaching of Math in		
Secondary School .....	3	3
Math 452 Seminar .....	1	1
SS 401 American Citizenship .....	3	3
Elective .....	4	4
	—	—
	16	16

## EIGHTH SEMESTER

Ed 421 Student Teaching .....	30	12
Ed 422 Professional Practicum &		
School Law .....	2	2
	—	—
	32	14

†Students with advanced standing may begin with the Analytic Geometry & Calculus sequence.

\*A science sequence other than physics may be arranged.

Students in the Liberal Arts Curriculum are not required to take Education Courses.

## GENERAL MUSIC

HAROLD S. ORENDORFF, Chairman

## FIRST SEMESTER

S.H.

EngS 101 Communication I .....	5
HPe 101 Health (Women) .....	2
MS 101 Military Science (Men) .....	
Mus 111 Sight Singing I .....	2
Mus 115 Harmony I .....	3
Mus 113 Ear Training I .....	1
Voice 101 Class Voice I .....	1
Clar 101 Class Clarinet .....	1
Piano 211 Private Piano .....	1

## SECOND SEMESTER

S.H.

EngS 102 Communication II .....	5
Mus 112 Sight Singing II .....	2
Mus 116 Harmony II .....	3
Mus 114 Ear Training II .....	1
Mus 311 Fundamentals of Conducting .....	2
Voice 102 Class Voice II .....	1
Violin 101 Class Violin .....	1
Piano 212 Private Piano .....	1
MS 102 Military Science (Men) .....	2

## THIRD SEMESTER

Foreign Language I .....	3
Science .....	4
Math 101 Foundations of Math .....	4
Mus 215 Harmony III .....	3
WW 101 Class Woodwinds .....	1
Piano 213 Private Piano .....	1
Voice 211 Private Voice .....	1
MusEd 201 Eurythmics I .....	1

## FOURTH SEMESTER

Foreign Language II .....	3
Science .....	4
Psy 201 General Psychology .....	3
Mus 216 Harmony IV .....	3
Strings 101 Class Strings .....	1
Piano 214 Private Piano .....	1
Voice 212 Private Voice .....	1
MusEd 202 Eurythmics II .....	1

## FIFTH SEMESTER

EngS 301 Intro. to Literature .....	2
SS 202 History of Civilization II .....	3
Psy 302 Educational Psychology .....	3
Mus 301 History of Music I .....	3
MusEd 301 Elementary Methods .....	2
Mus 312 Choral Conducting .....	2
Cornet 101 Class Cornet .....	1
Applied Elective .....	1

## SIXTH SEMESTER

SS 302 History of U.S. & Pa. II .....	3
Ed 302 History & Phil. of Am. Ed. ....	3
Mus 302 History of Music II .....	3
MusEd 302 Jr. H.S. Methods .....	2
MusEd 303 Sr. H.S. Methods .....	2
Mus 313 Instrumental Conducting .....	2
Brass 101 Class Brass .....	1
Applied Elective .....	2

## SEVENTH SEMESTER

Phil 420 Intro. to Philosophy or .....	
SS 410 Intro. to Anthropology .....	3
SS 401 American Citizenship .....	3
Ed 301 Audio-Visual Ed. ....	2
Geog 111 World Geography .....	3
Mus 303 History of Music III .....	3
MusEd 304 Instrumental Methods .....	2
Perc 101 Class Percussion .....	1

## EIGHTH SEMESTER

Ed 421 Student Teaching .....	12
Ed 422 Professional Practicum .....	2



## INSTRUMENTAL MUSIC

HAROLD S. ORENDORFF, Chairman

## FIRST SEMESTER

S.II.

EngS 101 Communication I .....	5
HPE 101 Health (Women) .....	2
MS 101 Military Science (Men) .....	
Mus 111 Sight Singing I .....	2
Mus 115 Harmony I .....	3
Mus 113 Ear Training I .....	1
Clar 101 Class Clarinet .....	1
Piano 111 Private Piano .....	1
Private Major Instr. ....	1
MusEd 201 Eurythmics I .....	1

## SECOND SEMESTER

S.II.

EngS 102 Communication II .....	5
Mus 112 Sight Singing II .....	2
Mus 116 Harmony II .....	3
Mus 114 Ear Training II .....	1
Mus 311 Fundamentals of Conducting .....	2
Violin 101 Class Violin .....	1
Piano 112 Private Piano .....	1
Private Major Instr. ....	1
MS 102 Military Science (Men) .....	2

## THIRD SEMESTER

Foreign Language I .....	3
Science .....	4
Math 101 Foundations of Mathematics .....	4
Mus 215 Harmony III .....	3
Voice 101 Class Voice I .....	1
Private Major Instr. ....	1

## FOURTH SEMESTER

Foreign Language .....	3
Science .....	4
Psy 201 General Psychology .....	3
Mus 216 Harmony IV .....	3
Voice 102 Class Voice II .....	1
WW 101 Class Woodwinds .....	1
Private Major Instr. ....	1
MusEd 202 Eurythmics II .....	1

## FIFTH SEMESTER

EngS 301 Intro. to Literature .....	2
SS 202 Hist. of Civilization II .....	3
Psy 302 Educational Psychology .....	3
Mus 301 History of Music I .....	3
MusEd 302 Jr. H.S. Methods .....	2
Mus 306 Counterpoint I .....	2
Cornet 101 Class Cornet .....	1
Strings 101 Class Strings .....	1
Private Major Instr. ....	1

## SIXTH SEMESTER

SS 302 History of U.S. & Pa. II .....	3
Ed 302 History & Phil. of Am. Ed. ....	3
Mus 302 History of Music II .....	3
MusEd 303 Sr. H.S. Methods .....	2
MusEd 304 Instrumental Methods .....	2
Mus 313 Instrumental Conducting .....	2
Brass 101 Class Brass .....	1
Perc 101 Class Percussion .....	1
Private Major Instr. ....	1

## SEVENTH SEMESTER

Phil 420 Intro. to Philosophy or .....	
SS 410 Intro. to Anthropology .....	3
SS 401 American Citizenship .....	3
Ed 301 Audio-Visual Education .....	2
Geog 111 World Geography .....	3
Mus 303 History of Music III .....	3
Mus 309 Orchestration I .....	2
Private Major Instr. ....	1

## EIGHTH SEMESTER

Ed 421 Student Teaching .....	12
Ed 422 Professional Practicum .....	2

## VOCAL MUSIC

HAROLD S. ORENDORFF, Chairman

## FIRST SEMESTER

S.H.

EngS 101 Communication I .....	5
HPe 101 Health (Women) .....	2
MS 101 Military Science (Men) .....	
Mus 111 Sight Singing I .....	2
Mus 115 Harmony I .....	3
Mus 113 Ear Training I .....	1
Voice 101 Class Voice I .....	1
Violin 101 Class Violin .....	1
Piano 211 Private Piano .....	1

## SECOND SEMESTER

S.H.

EngS 102 Communication II .....	5
Mus 112 Sight Singing II .....	2
Mus 116 Harmony II .....	3
Mus 114 Ear Training II .....	1
Mus 311 Fundamentals of Conducting .....	2
Voice 102 Class Voice II .....	1
Clar 101 Class Clarinet .....	1
Piano 212 Private Piano .....	1
MS 102 Military Science (Men) .....	2

## THIRD SEMESTER

Foreign Language I .....	3
Science .....	4
Math 101 Foundations of Math .....	4
Mus 215 Harmony III .....	3
Voice 211 Private Voice .....	1
Piano 213 Private Piano .....	1
MusEd 201 Eurythmics I .....	1

## FOURTH SEMESTER

Foreign Language II .....	3
Science .....	4
Psy 201 General Psychology .....	3
Mus 216 Harmony IV .....	3
Cornet 101 Class Cornet .....	1
Voice 212 Private Voice .....	1
Piano 214 Private Piano .....	1
MusEd 202 Eurythmics II .....	1

## FIFTH SEMESTER

EngS 301 Intro. to Literature .....	2
SS 202 History of Civilization II .....	3
Psy 302 Educational Psychology .....	3
Mus 301 History of Music I .....	3
MusEd 301 Elementary Methods .....	2
Mus 312 Choral Conducting .....	2
Private Voice or Piano .....	2
Private Piano or Voice .....	1

## SIXTH SEMESTER

SS 302 History of U.S. & Pa. II .....	3
Ed 302 History & Phil. of Am. Ed. ....	3
Mus 302 History of Music II .....	3
MusEd 302 Jr. H.S. Methods .....	2
MusEd 303 Sr. H.S. Methods .....	2
Private Voice or Piano .....	2
Private Piano or Voice .....	1
Music Elective .....	2

## SEVENTH SEMESTER

Phil 420 Intro. to Philosophy or .....	
SS 410 Intro. to Anthropology .....	3
SS 401 American Citizenship .....	3
Ed 301 Audio-Visual Ed. ....	2
Geog 111 World Geography .....	3
Mus 303 History of Music III .....	3
Music Elective .....	2
Private Voice or Piano .....	1

## EIGHTH SEMESTER

Ed 421 Student Teaching .....	12
Ed 422 Professional Practicum .....	2

## PUBLIC SCHOOL NURSING

GEORGE A. W. STOUFFER, Director

The Board of Presidents of the State Colleges approved on January 19, 1951, a curriculum for public school nurses leading to the degree of bachelor of science in education. The requirements shown below must be met.

1. The satisfactory completion of a three-year curriculum in an approved school of nursing and registration by the State Board of Examiners for the Registration of Nurses of Pennsylvania.
2. The satisfactory completion of sixty (60) semester hours of additional preparation distributed as follows:

## A. Courses Related to Public School Nursing

## Semester Hours

PSN 301 Public School Nursing .....	2
PSN 302 Public School Organization .....	2
PSN 401 Public Health Nursing .....	6
PSN 402 Nutrition and Community Health .....	2
PSN 403 Family Case Work .....	3
<b>TOTAL .....</b>	<b>15</b>

## B. General and Professional Education

SS 302 History of the United States and Pa. II .....	3
EngS 101 Communication I .....	5
SS 201 or SS 202 History of Civilization I or II .....	3
EngS 201 or EngS 301 Literature I or II .....	2
SS 401 American Citizenship .....	3
SS 251 Introduction to Sociology .....	3
Ed 302 Hist. and Phil. of Am. Ed. ....	3
Psy 302 Educational Psychology .....	3
Psy 352 Mental Hygiene .....	3
SpH 354 Audiometry for PSN .....	3
Ed 301 Audio-Visual Education .....	2
Electives .....	12
<b>TOTAL .....</b>	<b>45</b>
<b>GRAND TOTAL .....</b>	<b>60</b>

In the case of nurses with less than three years preparation for registration, such persons will pursue additional courses to meet the requirements for the degree.

## THE SCIENCES

DWIGHT E. SOLLBERGER, Chairman

### REQUIREMENTS FOR BIOLOGY MAJORS

The major in Biology consists of 32 semester hours credit. In addition supporting courses in Chemistry, Mathematics and Physics are required.

#### Major in Biology

##### FIRST SEMESTER

	Cr.
Biol 111-121 Botany I or Zoology I	4
Chem 111 General Chemistry I	4
EngS 101 Communication I	5
HPE 101 Health or	
MS 101 Military Science	2
	15

##### THIRD SEMESTER

Biol 111-121 Botany I or Zoology I	4
Psy 201 General Psychology	3
Math 152 Algebra and Trig.	5
Foreign Language	3
Elective	3
	18

##### FIFTH SEMESTER

EngS 301 Introduction to Literature	2
Phys 111 Physics I	4
SS 302 History of U.S. & Pa. II	3
Biol 271 Evolution or	
ESci 221 Geology	3
Elective	4
	16

##### SEVENTH OR EIGHTH SEMESTER

SS 410 Anthropology or	
Phil 420 Philosophy	3
Ed 305 Evaluative Methods	2
SS 401 American Citizenship	3
Ed 302 History and Philosophy of Educ.	3
Elective	6
	17

##### SECOND SEMESTER

	Cr.
Biol 112-122 Botany II or Zoology II	4
Chem 112 General Chemistry II	4
EngS 102 Communication II	5
HPE 102 Physical Education or	
MS 102 Military Science	2
Art 101 Introduction to Art or	
Mus 101 Introduction to Music	3
	18

##### FOURTH SEMESTER

Biol 112-122 Botany II or Zoology II	4
SS 202 History of Civilization	3
Geog 111 World Geography	3
Foreign Language	3
Elective	3
	16

##### SIXTH SEMESTER

Ed 301 Audio-Visual Education	2
Phys 112 Physics II	4
Psy 302 Educational Psychology	3
Ed 451 Teaching Science in	
Secondary Schools	3
Elective	3
	15

##### SEVENTH OR EIGHTH SEMESTER

Ed 421 Student Teaching	12
Ed 422 Professional Practicum and	
School Law	2
	14

#### Biology Electives

Biol 251 Field Botany
Biol 252 Field Zoology
Biol 261 Ornithology
Biol 262 Entomology
Biol 362 Ecology
Biol 272 Conservation
Biol 371 Vertebrate Anatomy
Biol 351 Plant Physiology
Biol 352 Animal Physiology

Biol 361 Microbiology
Biol 281 Parasitology
Biol 263 Genetics
Biol 498 Problems in Biology
Biol 331 Embryology
Biol 332 Comparative Anatomy
Biol 341 General Physiology
Biol 472 Radiation Biology

## REQUIREMENTS FOR CHEMISTRY MAJORS

The major in Chemistry consists of 27 semester hours credit. In addition supporting courses in Biology, Mathematics and Physics are required.

### Major in Chemistry

#### FIRST SEMESTER

Chem 111 General Chemistry I .....	4
Math 152 Algebra and Trig. ....	5
EngS 101 Communication I .....	5
HPe 101 Health or	
MS 101 R.O.T.C. ....	2
	16

#### SECOND SEMESTER

	Cr.
Chem 112 General Chemistry II .....	4
Math 157 Analytical Geometry and	
Calculus I .....	4
EngS 102 Communication II .....	5
HPe 102 Health or	
MS 102 R.O.T.C. ....	2
	16

#### THIRD SEMESTER

Chem 211 Qualitative Analysis .....	4
Math 257 Analytical Geometry and	
Calculus II .....	4
Sci 102 Biology I .....	4
Foreign Language .....	3
Psy 201 General Psychology .....	3
	18

#### FOURTH SEMESTER

Chem 212 Quantitative Analysis .....	4
Art 101 Introduction to Art or	
Mus 101 Introduction to Music .....	3
Sci 104 Biology II .....	4
Foreign Language .....	3
Elective .....	4
	18

#### FIFTH SEMESTER

Chem 311 Organic Chemistry I .....	4
Phys 111 Physics I .....	4
Psy 302 Educational Psychology .....	3
Ed 302 Hist. and Phil. of Am. Ed. ....	3
SS 202 History of Civilization II .....	3
	17

#### SIXTH SEMESTER

Chem 312 Organic Chemistry II .....	4
Phys 112 Physics II .....	4
Ed 451 Teaching Science in	
Secondary Schools .....	3
EngS 301 Introduction to Literature .....	2
Ed 305 Evaluative Methods .....	2
Ed 301 Audio-Visual Education .....	2
	17

#### SEVENTH SEMESTER\*

Chem 411 Physical Chemistry I .....	4
SS 302 History of U.S. & Pa. II .....	3
SS 410 Anthropology or	
Phil 420 Philosophy .....	3
SS 401 American Citizenship .....	3
Geog 111 World Geography .....	3
	16

#### EIGHTH SEMESTER\*

Ed 421 Student Teaching .....	12
Ed 422 Professional Practicum and	
School Law .....	2
	14

\*Note: These two semesters are interchangeable.

### Chemistry Electives

Chem 251 Industrial Chemistry  
Chem 351 Biological Chemistry  
Chem 451 Colloidal Chemistry

Chem 452 Advanced Inorganic Chemistry  
Chem 498 Problems in Chemistry

## REQUIREMENTS FOR PHYSICS MAJORS

The major in Physics consists of 26 semester hours credit. In addition supporting courses in Biology, Chemistry and Mathematics are required.

### Major in Physics

FIRST SEMESTER	Cr.	SECOND SEMESTER	Cr.
EngS 101 Communication I .....	5	EngS 102 Communication II .....	5
Math 152 Algebra and Trig. ....	5	Math 157 Analytical Geometry and Calculus I .....	4
HPE 101 Health or .....	2	HPE 102 Physical Education or .....	2
MS 101 R.O.T.C. ....	4	MS 102 R.O.T.C. ....	4
Phys 111 Physics I .....	—	Phys 112 Physics II .....	—
	16		15

THIRD SEMESTER		FOURTH SEMESTER	
Math 257 Analytical Geometry and Calculus II .....	4	Art 101 Introduction to Art or .....	3
Foreign Language .....	3	Mus 101 Introduction to Music .....	3
Psy 201 General Psychology .....	3	Foreign Language .....	3
Chem 111 General Chemistry I .....	4	Geog 111 World Geography .....	3
Physics Elective .....	3	Chem 112 General Chemistry II .....	4
	17	Elective .....	4
			17

FIFTH SEMESTER		SIXTH SEMESTER	
EngS 301 Introduction to Literature .....	2	Ed 451 Teaching Science in .....	3
Psy 302 Educational Psychology .....	3	Secondary Schools .....	3
SS 202 History of Civilization II .....	3	Ed 302 Hist. and Phil. Am. Ed. ....	3
Ed 305 Evaluative Methods .....	2	SS 302 History of U.S. & Pa. II .....	3
Phys 211 Elect. & Mag. I .....	3	Physics Elective .....	4
Sci 103 General Biology I .....	4	Sci 104 General Biology II .....	4
	17		17

SEVENTH OR EIGHTH SEMESTER		SEVENTH OR EIGHTH SEMESTER	
SS 410 Anthropology or .....	3	Ed 421 Student Teaching .....	12
Phil 420 Philosophy .....	3	Ed 422 Professional Practicum and .....	2
SS 401 American Citizenship .....	3	School Law .....	—
Ed 305 Audio-Visual Education .....	2		14
Phys 311-312 Mechanics I or II .....	3		
Elective .....	4		
	15		

### Physics Electives

Phys 382 Heat	Phys 451 Atomic and Nuclear Physics
Phys 361 Electronics	Phys 452 Selected Experiments in Atomic, Nuclear and Modern Physics
Phys 472 Modern Physics (Required)	
Phys 371 Optics	

## REQUIREMENTS FOR PHYSICS-MATHEMATICS MAJORS

The major in Physics-Mathematics consists of 36 hours in physics and mathematics with 8 hours in supporting courses.

### Physics Mathematics Majors

FIRST SEMESTER		SECOND SEMESTER	
	Cr.		Cr.
EngS 101 Communication I .....	5	EngS 102 Communication II .....	5
Math 152 Algebra or Trigonometry .....	5	Math 157 Analytical Geometry and Calculus I .....	4
HPE 101 Health or		HPE 102 Physical Education or	
MS 101 R.O.T.C. ....	2	MS 102 R.O.T.C. ....	2
Phys 111 Physics I .....	4	Phys 112 Physics II .....	4
	16		15
THIRD SEMESTER		FOURTH SEMESTER	
Foreign Language .....	3	Foreign Language .....	3
Math 251 Calculus I .....	4	Math 252 Calculus II .....	4
Art 101 Introduction to Art or		Geog 111 World Geography .....	3
Mus 101 Introduction to Music .....	3	Physics Elective .....	3
Phys 472 Modern Physics .....	3	Psy 201 General Psychology .....	3
SS 202 History of Civilization II .....	3		—
	16		16
FIFTH SEMESTER		SIXTH SEMESTER	
Phys 211 Elect. & Mag. I .....	3	Physics Elective .....	4
Sci 103 General Biology I .....	4	Sci 104 General Biology II .....	4
EngS 301 Introduction to Literature .....	2	SS 302 History of U.S. & Pa. II .....	3
Psy 302 Educational Psychology .....	3	Ed 302 History and Phil. of Education .....	3
Ed 305 Evaluative Methods .....	2	Ed 451 Teaching Science in Secondary Schools .....	3
Math or Physics Elective .....	3		—
	17		17
SEVENTH OR EIGHTH SEMESTER		SEVENTH OR EIGHTH SEMESTER	
Phys 311-312 Mechanics I or II .....	3	Ed 421 Student Teaching .....	12
SS 401 American Citizenship .....	3	Ed 422 Professional Practicum and School Law .....	2
SS 410 Anthropology or			—
Phil 420 Philosophy .....	3		14
Physics or Math Elective .....	3		
Ed 301 Audio-Visual Education .....	2		
Elective .....	3		
	17		

### Electives in Physics

Phys 382 Heat	Phys 451 Atomic and Nuclear Physics
Phys 361 Electronics	Phys 452 Selected Experiments in Atomic, Nuclear and Modern Physics
Phys 472 Modern Physics (Required)	
Phys 498 Problems in Physics	

### Electives in Mathematics

Math 253 Advanced College Algebra	Math 375 Introduction to Modern Math
Math 381 Advanced Calculus	Math 361 Differential Equations
Math 355 College Geometry	Math 358 Theory of Probability
Math 362 Statistics	Math 368 Vector Analysis
Math 353 History of Mathematics	Math 365 Fourier Series
Math 354 Field Work in Mathematics	Math 376 Abstract Algebra

## REQUIREMENTS FOR PHYSICAL SCIENCE MAJORS

The major in Physical Science consists of 34 hours in physics and chemistry with 20 hours in supporting courses.

### Physical Science Majors

FIRST SEMESTER		SECOND SEMESTER	
	Cr.		Cr.
Chem 111 General Chemistry I .....	4	Chem 112 General Chemistry II .....	4
Math 152 Algebra and Trigonometry .....	5	Math 157 Analytical Geometry and	
EngS 101 Communication I .....	5	Calculus I .....	4
HPe 101 Health or		EngS 102 Communication II .....	5
MS 101 Military Science I .....	2	HPe 102 Physical Education or	
—	—	MS 102 Military Science II .....	2
	16	—	—
			15
THIRD SEMESTER		FOURTH SEMESTER	
Phys 111 Physics I .....	4	Phys 112 Physics II .....	4
Chem 211 Qualitative Analysis .....	3	Chem 311 Organic Chemistry I .....	4
Math 257 Analytical Geometry &		Foreign Language .....	3
Calculus II .....	4	Geog 111 World Geography .....	3
Foreign Language .....	3	Psy 201 General Psychology .....	3
Art 101 Introduction to Art or		—	—
Mus 101 Introduction to Music .....	3		17
—	—		
	17		
FIFTH SEMESTER		SIXTH SEMESTER	
Phys 211 Elect. & Mag. ....	3	SS 302 History of U.S. & Pa. II .....	3
Chem 411 Physical Chemistry .....	3	Ed 302 Hist. and Phil. of Education .....	3
EngS 301 Intro. to Literature .....	2	Ed 451 Teaching Science in	
Psy 302 Educational Psychology .....	3	Secondary Schools .....	3
Psy 305 Evaluative Methods .....	2	Physics Elective .....	7
SS 202 History of Civilization .....	3	—	—
—	—		16
	16		
SEVENTH OR EIGHTH SEMESTER		SEVENTH OR EIGHTH SEMESTER	
Phys 311-312 Mechanics I or II .....	3	Ed 421 Student Teaching .....	12
Chem. or Phys. Elective .....	5	Ed 422 Professional Practicum and	
SS 401 American Citizenship .....	3	School Law .....	2
SS 410 Anthropology or Philosophy .....	3	—	—
Ed 301 Audio-Visual Education .....	2		14
—	—		
	16		

### Chemistry Electives

Chem 212 Quantitative Analysis  
Chem 312 Organic Chemistry II  
Chem 351 Biological Chemistry

Chem 251 Industrial Chemistry  
Chem 498 Problems in Chemistry

### Physics Electives

Phys 382 Heat  
Phys 361 Electronics  
Phys 472 Modern Physics (Required)  
Phys 371 Optics

Phys 451 Atomic and Nuclear Physics  
Phys 452 Selected Experiments in Atomic,  
Nuclear and Modern Physics



## REQUIREMENTS FOR EARTH SCIENCE

The major in Earth Science consists of 34 semester hours credit in earth science courses. In addition 20 semester hours credit are required in supporting courses.

### Major in Earth Science

#### FIRST SEMESTER

	Cr.
EngS 101 Communication I .....	5
Math 152 Algebra and Trigonometry .....	5
Phys 111 Physics I .....	4
HPe 101 Health or	
MS 101 Military Science I .....	2
	16

#### SECOND SEMESTER

	Cr.
EngS 102 Communication II .....	5
Math 157 Analytic Geometry and	
Calculus I .....	4
Phys 112 Physics II .....	4
HPe 102 Physical Education I or	
MS 102 Military Science II .....	2
	15

#### THIRD SEMESTER

ESci 211 Astronomy I .....	3
Chem 111 General Chemistry I .....	4
Foreign Language .....	3
Geog 111 World Geography .....	3
Art 101 Introduction to Art or	
Mus 101 Introduction to Music .....	3
	16

#### FOURTH SEMESTER

ESci 212 Astronomy II .....	3
Chem 112 General Chemistry II .....	4
Foreign Language .....	3
ESci 217 Meteorology .....	3
Psy 201 General Psychology .....	3
	16

#### FIFTH SEMESTER

ESci 221 Physical Geology .....	3
EngS 301 Introduction to Literature .....	2
Geog 246 Physiography .....	3
Sci 103 General Biology I .....	4
Ed 302 History of U.S. & Pa. II .....	3
Ed 305 Evaluative Methods .....	2
	17

#### SIXTH SEMESTER

ESci 222 Historical Geology .....	3
SS 202 History of Civilization .....	3
Ed 201 Audio-Visual Education .....	2
Sci 104 General Biology II .....	4
Psy 301 Educational Psychology .....	3
Elective .....	3
	18

#### SEVENTH OR EIGHTH SEMESTER

SS 410-420-421 Anthropology, Logic or	
Philosophy .....	3
Ed 451 Teaching Science in	
Secondary Schools .....	3
Elective .....	7
	17

#### SEVENTH OR EIGHTH SEMESTER

Ed 421 Student Teaching .....	12
Ed 422 Professional Practicum and	
School Law .....	2
	14

### Electives (at least one must be taken)

Biol 362 Ecology  
 Geog 241 Climatology  
 ESci 331 Navigation  
 Geog 351 Oceanography  
 ESci 321 Paleontology

Biol 272 Conservation of Plant and Animal  
 Resources  
 Chem 211 Qualitative Analysis  
 Phys 472 Modern Physics

## SOCIAL SCIENCE

RAYMOND L. LEE, Chairman

### FIRST SEMESTER

	Cr.
EngS 101 Communication I .....	5
Sci 101 Basic Biology or	
Sci 103 Basic Physical Science .....	4
Foreign Language .....	3
Geog 101 World Geography .....	3
HPe 101 Health or	
MS 101 Military Science .....	2
	—
	17

### SECOND SEMESTER

	Cr.
EngS 102 Communication II .....	5
Sci 102 Basic Biology or	
Sci 104 Basic Physical Science .....	4
Foreign Language .....	3
HPe 102 Physical Education I or	
MS 102 Military Science .....	1-2
	—
	16-17

### THIRD SEMESTER

Psy 201 General Psychology .....	3
Art 101 Introduction to Art or	
Mus 101 Introduction to Music .....	3
Math 101 Fundamentals of Mathematics .....	4
HPe 103 Physical Education II or	
Military Science .....	1-2
Elective .....	6
	—
	17-18

### FOURTH SEMESTER

SS 201 Civilization II .....	3
Psy 302 Education Psychology .....	3
Elective .....	9-12
	—
	12-15

### FIFTH SEMESTER

Ed 302 Hist-Phil Education .....	3
EngS 301 Introduction to Literature .....	2
SS 301 U.S. & Pa. II .....	3
Electives or Pro Courses .....	9
	—
	17

### SIXTH SEMESTER

Ed 301 Audio-Visual Education .....	2
Ed 354 Teaching Social Studies .....	3
Electives .....	12
	—
	17

### SEVENTH SEMESTER

Ed 305 Evaluative Methods .....	2
SS 410 Anthropology or	
Phil 420 Philosophy .....	3
SS 401 American Citizenship .....	3
Elective .....	9
	—
	17

### EIGHTH SEMESTER

Ed 421 Student Teaching .....	12
Ed 422 Professional Practicum and	
School Law .....	2
	—
	14

## THE DEPARTMENTS AND COURSE DESCRIPTIONS

### THE ART DEPARTMENT

ORVAL KIPP, Chairman of Department

ROBERT J. CRONAUER  
THOMAS DONGILLA  
PATRICIA H. EDEN  
ALICE T. GHRIST  
JOHN A. GHRIST

JOANNE LOVETTE  
LAWRENCE F. McVITTY  
RALPH W. REYNOLDS  
ROBERT SEELHORST  
ROBERT E. SLENKER

### GENERAL EDUCATION COURSE

#### Art 101 Introduction to Art 3 cr.

Studies in the understanding and enjoyment of the visual arts as modes of expression, feeling, and communication make up the content of this course. Reproductions, demonstrations, slides, moving pictures as well as field trips to see original works of art, are used in sampling our cultural heritage.

### REQUIRED COURSES FOR ART STUDENTS

Courses are listed in the order in which they should be completed in each field. Subjects in the various fields are carried simultaneously in order to facilitate the development of the student.

### THE BASIC COURSES

#### Art 111 Drawing in All Media 2 cr.

Problems in pictorial composition and methods of drawing in perspective as well as dark and light are studied in various media in still life and landscape.

#### Art 112 Composition and Figure Drawing 2 cr.

Pictorial design and composition are studied in still life, landscape, and figure arrangement. Figure construction, anatomy, and life drawing are also included.

#### Art 113 Color and Design 2 cr.

Basic elements and principles of design and color are studied. Problems in two and three dimensional design are completed.

#### Art 114 Crafts in Elementary Education 2 cr.

Crafts experiences are given in various materials and processes suitable to the needs of the elementary teacher. The intention is to develop a creative attitude and resourcefulness in the use of three dimensional materials.

**Art 115 Art History I****3 cr.**

The visual arts are examined as modes of expression in relation to the life of the individual in the home and in the community. The period covered is from Prehistoric times to the Renaissance.

**ART EDUCATION****Art 311 Art in Elementary Education****3 cr.**

The orientation here is toward the child centered curriculum in which individuals can develop their creative powers to make their best contribution in a democracy. Emphasis is on art education as a process for furthering the total growth of the child, and his art products are evaluated by this criterion. Experience is given with two dimensional materials as they apply to the elementary level. Art programs, planning, and motivation are studied critically.

**Art 312 Art in Junior and Senior High School****3 cr.**

The relationship of art education to the total secondary curriculum is studied to determine the goals of junior-senior high school art. The adolescent and his creative products are analyzed to help the prospective art teacher identify himself with the problems of his students. Emphasis is placed upon the concept of the adolescent's waning self-confidence in his creative expression and his dire need of aesthetic experiences to help reorient himself.

**Ed. 421 (Art) Student Teaching (and Directed Student Activities)****12 cr.**

Here the prospective art teacher is given many opportunities, under capable supervision, to guide the creative efforts of students at all age levels in the primary, elementary, junior, and senior high schools. Current philosophies of general and art education are applied in a practical teaching situation. Emphasis is placed on the creative growth of teacher and pupil.

**Ed. 422 Professional Practicum (including School Law)****2 cr.**

Consideration is given to recent education trends and methods, art curricula, and to planning of art courses for all grade levels. Practicum also includes professional readings, discussions, observations, and the accumulation and organization of pertinent teaching materials.

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ART HISTORY AND AESTHETICS**Art 116 Art History II** 3 cr.

This is a continuation of Art History in which appreciation and critical judgment of old and modern masterpieces are goals. The relation of art to the world from the Renaissance to the 20th century is presented. A brief survey of modern art is presented in the latter part of the course.

**Art 216 Aesthetics** 3 cr.

Aesthetics forms a background for creative consideration and feeling within which as individuals we can come to an evaluation and comprehension of the meaning of art and the intention of the artist. Theories of the essential character of art and its relationship to life are discussed.

**Art 458 Art History III** 3 cr.

The great revolutionary movements which began about 1850 and the trends of contemporary arts are vital to the art students of today. This course completes the sequence in the History of Art through the ages.

## CRAFTS

**Art 215 Crafts in Metal and Wood** 2 cr.

In this course the student is given an opportunity to develop his design awareness through experiencing those craft processes associated with wood and metal. Hand and power tools are used to experiment with these materials in discovering inherent design and construction possibilities.

**Art 214 Modeling and Sculpture** 2 cr.

This experience offers the student an opportunity to develop a personal expression while acquiring knowledge of three dimensional design related to sculpture and modeling. He becomes familiar with the structural nature of terra cotta, sheet material, wire, plaster, wood and stone. This is a basic course in which the materials are treated experimentally to achieve an interpretation of the material by hand and tool.

**Art 315 Pottery and Ceramics** 3 cr.

This is a creative experience directed toward the teaching of craftsmanship in ceramic art. Basic procedures of building forms by

hand and wheel are performed in this course. Students also work with decoration and learn the fundamentals of kiln operation and glazing.

Art 316 Jewelry 2 cr.

The jeweler's art is approached from the point of view of the creative craftsman who has to learn the metal arts processes associated with jewelry making. The lapidary arts, silver-smithing, and enameling are experienced.

## DESIGN, DRAWING, AND PAINTING

Art 211 Mechanical Drawing and Industrial Design 2 cr.

The principles and methods of instrumental drawing and shape description are studied in theory and in practice. Modern industrial design practices are studied through the planning and building of three dimensional products.

Art 212 Costume and Theater Arts 3 cr.

Color and design are used to solve problems in school and college dramatics and pageantry. Theory and practice in the design, construction, painting of scenery, lighting, costume, and properties are basic experiences.

Art 313 Water Color and Mixed Media 3 cr.

The material of the course is primarily concerned with transparent water color painting but includes work in gouache and mixed media. The work begins with a study of brush strokes and realistic on-the-spot painting and progresses through creative realism, semi-abstract, and non-figurative approaches.

Art 314 Oil Color and Mixed Media 3 cr.

This is a beginning course in the field of painting with opaque, plastic media. The student is introduced to the technical as well as the aesthetic bases of painting with a creative approach to the design possibilities inherent in these plastic materials and their associated processes.

## COMMERCIAL ART AND ILLUSTRATION

Art 213 Lettering, Commercial Art and Illustration 3 cr.

Design is the major concern in this study of the methods of planning and preparing art work for reproduction including lettering, layout, and illustration. Single stroke pen and brush types of lettering are practiced for rapid execution in making signs, showcards, and posters.

**Art 412 Graphic Arts**

3 cr.

The techniques of graphic expression studied are, etching, lithography, block printing, photography, engraving, and silk screen printing.

**ELECTIVES IN THE ART CURRICULUM**

<b>Art 451 Advanced Crafts</b>	3 credits
<b>Art 452 Advanced Ceramics</b>	3 credits
<b>Art 453 Advanced Sculpture</b>	3 credits
<b>Art 454 Advanced Painting</b>	3 credits
<b>Art 455 Advanced Commercial Art</b>	3 credits
<b>Art 456 Supervision of Art</b>	3 credits
<b>Art 457 Advanced Graphic Art</b>	3 credits
<b>Art 458 Art History III</b>	3 credits
<b>Art 459 Architecture and Home Planning</b>	3 credits

With the foundations already laid in three years of college art work the student may elect advanced courses offered in the senior year. The work will be mainly individual, experimental, and in depth with the aim of helping the student to make the transition from the position of student in the college classroom with directed studies to the position of artist. These studio-workshop courses will stress advanced techniques in the field of study from the old masters and master craftsmen to the best arts and crafts techniques of today. Individual exploration and experimentation will be required.

**Art 460 Crafts Materials Experience for Activity Teaching** 3 cr.

Craft experiences are given in various media suitable to the needs of the elementary teacher, teacher of special education, and scout leader. Developing a creative attitude to and resourcefulness in the use of art materials and their part in teaching will be stressed in the study of three dimensional design and crafts.

**Art 461 Art Materials Experience for Creative and Mental Growth** 3 cr.

The work will encompass a study of the growth pattern as evidenced in children's art expression. Child art will be evaluated and interpreted in regard to drawing and painting expression in an art program. Research studies in art education will be reviewed. Art experiences are given in various media suitable to the needs of the elementary teacher, teacher of special education, and scout leader. The arts and crafts will feature two dimensional design.

## THE BUSINESS DEPARTMENT

ALBERT E. DRUMHELLER, Chairman of Department

MARY JANE BOERING  
CHARLES L. COOPER  
CHARLES H. DUNCAN  
BEATRICE F. HICKS

PATRICIA PATTERSON  
JOHN POLESKY  
ARLENE RISHER  
JAMES K. STONER

HAROLD W. THOMAS

### REQUIRED BUSINESS COURSES FOR ALL BUSINESS EDUCATION STUDENTS

#### Bus 101 Introduction to Business 1 cr.

The purpose of this course is to introduce the student to the make-up of the business world, acquaint him with the contacts of everyday business, orient him in the field, and provide exploration in the various areas in Business Education. This should assist him greatly in his choice of his major field or his fields in the department. This course has pronounced guidance features.

#### Bus 131 Principles of Typewriting 2 cr.

For those persons who have had 1½ or more years of experience in this area in high school, a test is given and exemption from taking the course granted if course standards are met.

This introductory course places emphasis on the development of correct techniques in typewriting. The student is introduced to the basic styles of business letters, simple tabulations and simple manuscripts. Individual remedial work is given. Specific standards of speed and accuracy are required.

#### Bus 132 Intermediate Typewriting 2 cr.

This course continues the development of speed and accuracy. Students learn to type tabulated reports, special problems in letter arrangement and business forms, rough drafts and manuscripts. Production ability is developed.

#### Bus 271 Advanced Typewriting 2 cr.

Emphasis is placed upon the further development of speed and accuracy. Advanced letter forms, manuscript writing, legal documents, stencil duplication, statistical reports and typing from problem situations are given much attention. Improvement in production ability is stressed.

#### Bus 111 Business Mathematics I 3 cr.

This is a review of the fundamental processes with emphasis on speed and accuracy through adequate drill and practical application



in the handling of the fundamental business operations. Topics considered which especially concern business are the 60-day 6 per cent method of computing interest, compound interest; bank, cash and trade discount; along with partial payments. The course is a prerequisite and designed to lay a groundwork for Business Mathematics II.

**Bus 212 Business Mathematics II**

3 cr.

The purpose of this course is to teach students to apply principles of business mathematics with speed and accuracy in solving advanced problems encountered by the business man and the consumer. The mathematics of production, marketing, accounting, finance, and management correlate with the accounting courses.

**Bus 221 Introduction to Accounting**

3 cr.

This is the first course in this area and a prerequisite. Its purpose is to introduce the students to the keeping of records for the professional man as well as a mercantile enterprise involving the single proprietor. Emphasis is placed upon the distinction between keeping records on the cash basis as compared to the accrual basis of book-keeping. Consideration is given to special journals, the combined-cash journal, auxiliary records, and business papers.

**Bus 251 Intermediate Accounting**

3 cr.

Special consideration is given in connection with accruals and deferred items; the significance and handling of evaluation accounts and the interpretation of the effect of all types of transactions on the operation of the business are stressed throughout the course. Special attention is given to the voucher system and to the preparation of columnar records for different types of business along with the preparation and interpretation of comparative financial reports. Special consideration is given to the legal and accounting aspects, payroll and partnership organization, operation and dissolution.

**Bus 335 Clerical Practice Office Machines**

2 cr.

Clerical office routine is covered, together with the fundamentals of operating various office machines — calculators, adding machines, dictaphones, and various office appliances; also, the theory and practice of office management is stressed.

**Bus 321 Business Correspondence**

3 cr.

This is a course rich in the fundamentals of grammar; study of the vocabulary of business; setup of business forms and modern business letters; emphasis of the "you" attitude in the writing of letters of inquiry, response, order letters, adjustment letters, sales letters; preparation of data sheets, and application letters.

**Bus 235 Business Law I 3 cr.**

This course deals with the nature of law and the agencies and procedures for its enforcement, contracts, agency employment, negotiable instruments, property, bailments and transportation. The aim is to apply principles of law to everyday life and to establish proper interests, ideals and attitude toward law as a means of economic and social control.

**Bus 336 Business Law II 3 cr.**

The basic aim of this course is the same as that stated for Business Law I. Attention is given to kinds of business organizations, sales, insurance, surety and guaranty, leases and mortgages, trusts, and estates, bankruptcy, business torts and crimes.

**Bus 331 Sales and Retailing 3 cr.**

This course comprises a survey and analysis of the fields of retailing. A study is made of textile and non-textile merchandise, requirements for sales personnel, types of customers, merchandising plans and procedures, merchandise pricing and selling techniques.

**Bus 311 Methods of Teaching Business Courses 3 cr.**

This includes methods of teaching general business courses, as well as shorthand, typewriting, and bookkeeping. Unit plans, demonstrations and lesson planning are emphasized. Aims, techniques and procedures of teaching, grade placement of subjects and classroom management are considered items of the course. All courses in the student's major area along with the two Psychology courses must have been cleared before this course is taken.

**Bus 312 Evaluative Techniques in Business Courses 2 cr.**

This course includes the construction, administration, scoring, treatment and grading of various type tests. The analysis of test results, remedial teaching and retesting, the evaluation of tests, all tied together in the psychological foundation of good methods as they function in the field of Business Education.

**COURSES REQUIRED IN THE STENOGRAPHIC SEQUENCE****Bus 161 Shorthand Theory 3 cr.**

This is an introductory course in the basic principles of Gregg Shorthand Simplified.

**Bus 262 Shorthand Dictation 3 cr.**

There are three major objectives for this course: to review and strengthen the student's knowledge of the principles of Gregg Shorthand Simplified, to build shorthand-writing speed and to build transcription skill.

**Bus 263 Transcription**

3 cr.

This course develops additional speed in taking dictation with much emphasis placed on the development of transcription skill. Teaching techniques are considered a vital part of the work in this course.

**Bus 364 Secretarial Office Practice**

3 cr.

This course is an advanced study of the theory and the practice in activities common to the office — handling the mail, telegraphic services, shipping services, meeting callers, various business reports, financial and legal duties, filing, transcription, secretarial standards; personality, reference books, itineraries, preparation of documents, editing, etc.

**COURSES REQUIRED IN THE ACCOUNTING SEQUENCE****Bus 352 Corporate Accounting**

3 cr.

Special attention is given to the records and reports peculiar to the corporate form of organization as well as to the methods of handling capital and surplus. Emphasis is given to the methods of accounting for inventories, tangible and intangible fixed assets, investments, long-term liabilities, funds and reserves and the methods of amortizing bond premium and discount.

**Bus 353 Cost Accounting**

3 cr.

This course is designed to give the students an understanding of the theory of costing used in manufacturing establishments. The voucher system is introduced in this course and attention is given to budgeting, estimating and prorating of manufacturing expenses, the technical aspects of charting production data, and investigating time and motion study techniques.

**Bus 454 Tax Accounting**

3 cr.

This course is designed to enable the students to gain a familiarity with the Federal Income Tax Laws as they pertain to individuals, single proprietorships and partnerships. The Social Security Tax Law will also be considered as a phase of this course. In addition to studying the Internal Revenue Code in connection with the above topics problems will be considered which involve the use of the different forms that are necessary in tax accounting. The case method is utilized in the study of this subject.

**Bus 455 Auditing**

3 cr.

In this course students conduct a semi-detailed audit of business records, make the corrections, and submit statements of results. Prob-

lems of public and private auditing are developed by the instructor. The construction and organization of working papers and the auditor's final report are covered. It also provides the prospective teacher with a knowledge of the current tax laws in connection with Social Security, Excise and Income Taxes.

### COURSES REQUIRED IN THE RETAIL TRAINING SEQUENCE

Bus 251 Intermediate Accounting (see previous outline) 3 cr.

Bus 332 Retail Management 3 cr.

This course is an advanced study of the units of Retail Training I, and includes a study of merchandise control, stock planning, buying, pricing, personnel training, store layout and equipment, retail advertising and display. Suggested public relations activities are practiced in this course. A part of the semester is devoted to the study of the Pennsylvania Distributive Education Program.

Bus 433 Retail Practice 6 cr.

This is a practical course of cooperative part-time training in the retail establishments of Indiana. The student spends a minimum of 15 clock hours per week for a semester in actual retail work at which time he puts into practice the theories of retailing studied in previous retail training courses. This course may be taken by the student in or near his home town during the summer term by special arrangement and provided the distance is no greater than sixty miles from Indiana. Each of these plans is under the close supervision of store officials and of the College.

### ELECTIVES FOR BUSINESS STUDENTS

Bus 241 Business Organization and Finance 3 cr.

The contents of this course are designed to give an overview of business management. Modern business organization, finance, personnel administration, production, and public relations are studied and made meaningful as they fit into our industrial society. The organization and management of the corporation and other forms of business are covered.

Bus 342 Consumer Economics 3 cr.

Problems of production, distribution, merchandising and buying are studied. Intelligent consumership is stressed throughout all aspects of the course. Importance is placed upon maximum satisfaction from goods and services consumed by the individual.

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**Bus 354 Tax Accounting** (see previous outline) 3 cr.

This course is available only to Accounting Majors in Business Education and can be elected in either the Junior or Senior year.

### GENERAL ELECTIVE

**Bus 371 Elective Typing and Duplicating** 1 cr.

This course is available to all upper classmen except Business Education students.

## EDUCATION AND PSYCHOLOGY DEPARTMENT

STANLEY W. LORE, Chairman of Department

A. DALE ALLEN  
EDITH J. BECHDEL  
DON-CHEAN CHU  
DAVID S. GREEN  
JOHN J. HAYS  
DONALD A. HESS  
CHARLES DANIEL LEACH  
WILLIAM J. LEVENTRY  
DONALD M. MacISAAC  
BLANCHE W. McCLUER

J. ROBERT MURRAY  
EDWIN R. PAGE  
JOHN W. REID  
HAROLD F. ROWE  
PAUL RISHEBERGER  
NORMAN W. SARGENT  
ROBERT H. SAYLOR  
EDWARD D. SHAFFER  
DOROTHY SNYDER  
GEORGE L. SPINELLI

JAMES C. WILSON

### PROFESSIONAL EDUCATION COURSES

(Required of all Students in Education)

#### Ed 301 Audio-Visual Education

2 cr.

A consideration of the needs for sensory techniques and materials is given with attention to the psychological processes involved. Through class and laboratory work the student will have an opportunity to become acquainted with materials and equipment and skilled in audio-visual techniques, within the teaching field. Activities will include actual production of materials for class use and participation in their use.

Prerequisite: General Psychology.

#### Ed 302 History and Philosophy of American Education

3 cr.

This course is designed to promote a clearer understanding of modern educational practice through a study of historical changes in instructional processes and ideas underlying it. Through the emphasis placed upon the study of educational beliefs and points of view, the course seeks to foster critical thinking which will lead to better judgments about the role of the school in our social culture, the meaning of democracy, the teacher and his profession, and the objectives and methods of the school.

(Required of all Students in the Secondary and Elementary Curricula)

#### Psy 302 Educational Psychology

3 cr.

A course designed to promote a better understanding of the principles of psychology that govern human behavior, with particular emphasis on their relation to the learning process, the learning situation, and the learner himself. The significance of evaluation, individual variation, group dynamics, and child growth and development will be stressed throughout the course. Prerequisite: General Psychology.

**Ed 305 Evaluation Methods**

2 cr.

This course includes elementary statistics concerning graphs, sampling, frequency distribution, average, measure of central tendency and dispersion, and the normal curve. Emphasis is placed on an understanding of the various evaluation instruments with much attention being given to standardized tests, how to select them wisely, and how to interpret and use the results. The course also includes the use and construction of tests made by the teacher, and the systems of reporting pupil growth and development.

**GENERAL ELECTIVES**

(These courses are open to all students.)

**Ed 362 Developmental Reading**

3 cr.

This course, planned especially for the teacher of secondary students, will assist the participating student to understand the developmental reading process. The study will include such areas as objectives, background knowledge and understandings of the reading process, an overview of the elementary program, the pre-adolescent and the adolescent and their needs in reading, finding and providing for instructional needs, and special problems. Specific helps, experiences, techniques, and materials will be considered.

It is suggested that the course be taken by secondary students just before the student teaching experience.

**Ed 251 Fundamentals of Guidance**

2 cr.

This course gives consideration to the function and implementation of guidance services. It presents an over-all-view of guidance in relation to individual problems of adjustment in home and school, on the job, and to civic and social relationships. Throughout the course the relation of the curriculum to guidance and of the teachers to the guidance worker is dominant. The knowledge, techniques, and opportunities for careers in guidance service are presented for consideration.

**Ed 454 Public School Administration**

3 cr.

The course is designed to acquaint the teacher with the administration and organization of the American public school. Attention is given to the cultural role of the schools. Treatment is given to decision-making in the operation of the schools and the total task of school operation with emphasis on what should be done. The functions and methods of all professional personnel in the operation and improvement of the schools will be considered.

## PSYCHOLOGY COURSES

### (General Education Course)

#### Psy 201 General Psychology

3 cr.

A study of the principles and applications of human behavior. Major goals sought are: the provision of better ability in making personal adjustments; the development of habits of critical thought; elimination of erroneous popular beliefs; the acquisition of scientific vocabulary and facts; and the development of interest in, and respect for, one's fellow men and the field of psychology.

## REQUIRED COURSE FOR STUDENT NURSES

#### Psy 203 Psychology in Nursing

This is a basic course in psychology for student nurses. Emphasis is placed upon principles and generalizations that will aid the nurse to understand herself, her patients, and those with whom she will work. Attention is given to individuals of all age levels from the prenatal organism through the aged.

## PSYCHOLOGY ELECTIVES

(These courses are open to all students.)

#### Psy 202 Advanced General Psychology

4 cr.

A course designed to extend one's knowledge of general psychology as a science. An extension of general psychology for science and liberal arts students who desire acquaintance with topics in perception, the senses, and human learning. Weekly demonstrations and laboratory exercises. Prerequisite: General Psychology and permission of the instructor.

#### Psy 352 Mental Hygiene

3 cr.

A course designed for aiding the development of strong, hygienic personalities; mental hygiene as related to the child, adolescent, and teacher in the home, classroom, and social situation; maladjustments and mental diseases with emphasis on prevention. Prerequisite: General Psychology.

#### Psy 353 Child Psychology

3 cr.

This course aims to study the developmental changes in intellectual, emotional, motor, and social behavior from early infancy to adolescence. Outstanding experimental, clinical and theoretical contributions that show the important practical relationships between self-understanding, understanding of others, and the process of helping children to discover themselves will be given special attention. Prerequisite: General Psychology.



**Psy 354 Developmental Psychology** 3 cr.

A comprehensive study of research findings and methodology in the psychological development of the individual from conception to old age. Prerequisite: Psy 201.

**Psy 355 Adolescent Psychology** 3 cr.

This course is a study of the adolescent, his growth and development, behavior, personality, and problems. All areas in his experience will be considered, the physical, mental, emotional, social, and spiritual. Attention will be given to attitudes, relationships, and all other facets of his living. Some attention will be given to the early development of the child, the pre-adolescent, the young adult, and the adolescent in other cultures. Study and discussions will include the exception as well as the normal individual. Prerequisite: General Psychology.

**Psy 361 History of Psychology** 3 cr.

A comprehensive overview of the historical antecedents of contemporary systems of psychology. Philosophical and scientific thought will be considered as they are related to the establishment and continuing development of psychology. Prerequisite: General Psychology I.

**Psy 362 Physiological Psychology** 3 cr.

This course will be an intensive study of the physiological bases of behavior, with respect to the receptor, adjustive and effector systems. Selected principles of psychophysics and neuroanatomy are emphasized. Only students with adequate backgrounds in chemistry, physics and biological science will be permitted to take this course. Prerequisites: Psy 201, 202.

**Psy 363 Perception** 3 cr.

A study of perceptive processes and their effects upon the individual and the ways he acquires and is affected by them. Sensory mechanisms and their thresholds as well as responses to complex stimuli. Prerequisites: Psy 201, 202.

**Psy 371 Personality Theory** 3 cr.

A consideration of the principal theories of personality development as they apply to the normal individual. Dynamic theories of personality will be emphasized and studied in relation to their influence on the integration of the mature personality. Prerequisite: Six hours of Psychology including General Psychology.

Psy 372 Differential Psychology 3 cr.

A study of the nature, the extent and the origins of psychological differences existing among individuals and groups. Prerequisite: Psy 201.

Psy 381 Experimental Psychology 3 cr.

The experimental approach to the study of human behavior. Acquisition of basic research techniques is gained through emphasis upon experimental design and application of scientific methods to various psychological problems such as sensation, perception, reaction time, motivation and learning.

Psy 382 Statistics in Psychology 3 cr.

Basic statistical methods, with an introduction to statistical inference and correlation theory as they apply to psychological studies. Prerequisite: Psy 201.

Psy 391 Psychology of Learning 3 cr.

An analysis of theories and experimental findings in the acquiring, maintaining and changing of behavior as related to the learning process.

Psy 451 Psychological Practicum 3 cr.

Under the supervision of the Director of the Psychological Clinic selected students receive experience in the application of psychological technique. Prerequisite: Approval by Director of the Psychological Clinic.

Psy 452 Social Psychology 3 cr.

A study of the behavior of human beings as they react to other individuals, especially in social situations. Materials will stress the practical aspects of social psychology while at the same time emphasizing objectivity and scientific materials. Prerequisite: Six hours of Psychology, including General Psychology.

Psy 461 Abnormal Psychology 3 cr.

The systematic study of the full range of psychological functioning from the basic and accepted normal to the most extreme aberrations. Etiology, dynamics, symptomatology, treatment, and prognosis of the psychoneuroses, psychoses, psychomatic disorders, character disorders, and disorders of intelligence constitute the major emphases of the course. Prerequisite: General Psychology and Introduction to Personality.

**Psy 451 Senior Seminar in Psychology**

3 cr.

Open only to students with a specialization in psychology. Exploration of current theories and research in psychology, as well as to trends and developments in the various areas and divisions of psychology.

**SPECIAL EDUCATION COURSES**

Students in secondary and elementary curricula may become certified as teachers of the mentally retarded by taking the courses described below and fulfilling requirements for student teaching with the mentally retarded.

**Ed 220 Introduction to Exceptional Children**

3 cr.

This introductory course gives students an opportunity to survey the characteristics, needs, problems, and behavior patterns of those children who deviate sufficiently from the "normal" to be considered exceptional. Consideration will be given to those who fall intellectually both above and below the average; to those who are handicapped visually, acoustically, orthopedically, medically, or in respect to speech patterns. Behavior disorders resulting from brain impairment will also be considered.

**Sp Ed 301 Reading and other Language Arts for  
the Mentally Retarded**

3 cr.

This course deals with the preparation and execution of teaching units in reading, vocabulary development, spelling, handwriting, oral and written communication. The emphasis will be on what retarded children can reasonably be expected to do at elementary and secondary levels. Consideration will be given to the study and selection of children for special classes, to class management and to procedures designed to meet the unique needs of the mentally retarded.

**Mus Ed 310 Music for the Mentally Retarded**

2 cr.

The concept of the function of music in the light of the mentally retarded child will be developed from the standpoint of functional use rather than critical evaluation of skill development. Materials will be surveyed, evaluated, and selected for use as well as specific techniques of presentation. Prerequisite: El 211 Music for Elementary Grades.

**Psy 320 Psychology of Mentally Retarded Children**

3 cr.

This course will point up the importance of viewing the retarded child as a living, adjusting individual who responds to many kinds of situations and who is capable of far more than usually imagined. The importance of the way in which he adjusts, relevant to the nature and manifestation of his retardation, will be stressed. An attempt will be

made to promote an understanding of all of the factors that influence his development and adjustment. To do this it will be necessary to explore the forces that operate within and upon him and the dynamic way in which he attempts to resolve them.

**HPE 411 Health and Physical Education  
for the Mentally Retarded**

**2 cr.**

This course will provide an opportunity for the prospective teacher of the mentally retarded to gain a thorough understanding of a program of health, physical education and recreation as it applies to individuals with mental handicaps. Special attention will be given to the needs of children with physical handicaps or developmental problems which frequently accompany mental retardation.

**Ed 420 Teaching Mentally Retarded Children**

**3 cr.**

This course will consider the basic design, philosophy, and procedure developed for teaching mentally retarded children. Emphasis will be placed upon how to organize for teaching the mentally retarded child, how to guide the activities of the mentally retarded child, and how to teach the "fundamental processes" to the mentally retarded child.

**Ed 431 Special Class Methods for the Mentally Retarded**

**3 cr.**

The chief emphasis of this course will be upon practical and workable methods and materials which can be used effectively with slow-learning children. It will focus particularly upon methods which may be used in teaching those concepts in geography, science, mathematics and social studies which are useful for the education of mentally handicapped children.

**Art 330 Arts and Crafts for the Mentally Retarded**

**3 cr.**

The materials and processes of arts and crafts are studied for opportunities they offer in the training, therapy and education of students who are mentally retarded, crippled, or need special help for any reason.

**Ed 451 Special Class Methods for the Mentally Retarded**

**2 cr.**

The chief emphasis of this course will be upon practical and workable methods and materials which can be used effectively with slow-learning children. It is intended as a supplement to Ed 420 as well as to serve as a course in specific techniques which the classroom teacher will find to be valuable in actual classroom teaching of the mentally retarded.

**Ed 421 Student Teaching of the Mentally Retarded**

**1 cr.**

Students will be required both to observe and to participate in the teaching of mentally handicapped students. Ordinarily this course will be offered in conjunction with Ed 451.

(BASIC METHODS COURSES REQUIRED FOR SECONDARY STUDENTS WHO WISH TO BE CERTIFIED AS TEACHERS OF THE MENTALLY RETARDED)

El 222 Teaching of Reading 3 cr.

See Elementary Department, page 118.

El 313 Teaching of Arithmetic 3 cr.

See Mathematics Department, page 118.

### TEACHING OF THE SPEECH AND HEARING HANDICAPPED

The curriculum in Teaching of the Speech and Hearing Handicapped is designed to provide the course background necessary for certification of itinerant public school speech and hearing therapists. Offered in an eight semester sequence, it provides required background in the psychology of exceptional children, with special emphasis on speech and hearing handicapped children; required basic courses in elementary teaching methods; and required and elective background and methodology in speech correction and audiology. Student teaching in a public school speech and hearing program is a requirement for certification.

Because of its comprehensive nature, the curriculum lends itself more readily to students preparing in the secondary division. Students who wish dual certification in elementary education and in teaching of the speech and hearing handicapped will need to take two extra summers of study.

Students not intending to obtain certification in this field but who wish to be better prepared to handle children with speech and hearing problems more capably in the classroom may, with the permission of the instructor, elect certain courses in this curriculum. Elementary students are strongly urged to elect Speech Development and Improvement.

### REQUIRED COURSES

(Group 1 — Basic courses in Speech Correction and Audiology)

SpH 112 Speech Problems 3 cr.

This course introduces the student to the field of speech and hearing therapy. The major types of speech and hearing disorders are surveyed. Emphasis is placed on diagnostic and therapeutic considerations for retarded speech development and functional articulatory and voice disorders. Second semester, each year.

**SpH 211 Phonetics for Clinicians****3 cr.**

This course provides background in English speech sound classification systems; translation and transcription using the International Phonetic Alphabet system; and clinical applications of phonetics, including phonetic analyses, speech sound discrimination tests, auditory memory span tests, diadochokinetic tests, and research findings in experimental, acoustic, and motor phonetics that apply to clinical problems. Projects will be stressed. First semester, each year.

**SpH 221 Hearing Problems****3 cr.**

This course is essentially an introduction to audiology. It includes a brief history of audiology, anatomy of the aural mechanism, causes of hearing loss, speech and other behavioral effects of different types of hearing losses, pure tone and speech audiometric tests, public school audiometry, educational considerations for the hearing handicapped child, and hearing conservation programs. First semester, each year.

**SpH 311 Speech Reading and Auditory Training****3 cr.**

This course surveys current methods of speech reading and auditory training for the hearing handicapped person. Demonstrations and projects in clinical methods will be stressed. First semester, each year.

**SpH 322 Speech and Hearing Clinic I****2 cr.**

This course offers the student elementary practicum in clinical methods of diagnosis and therapy. Practice is given in the use of clinical instruments, lesson planning, case reports and histories, and treatment in both individual and group classes. Prerequisites: All required courses in Groups 1-2, except Speech Pathology. Each semester, each year.

**SpH 353 Speech and Hearing Clinic II****2 cr.**

This course provides advanced practicum with children presenting speech and hearing problems. The student is expected to assume greater responsibility and self-direction, even though he will be supervised. Prerequisite: Speech and Hearing Clinic I. Each semester, each year.

**SpH 351 Speech Pathology****3 cr.**

This course is designed to provide extensive background in speech disorders of organic nature. Voice pathologies, cleft palate, cerebral palsy, and aphasia will be studied in detail. Informational background, diagnostic tests, and therapy methods will be discussed and demonstrated. Second semester, each year.

(Group 2 — Courses in Psychology of Exceptional Children, with Special Emphasis on Speech and Hearing Handicapped Children)

Ed 220 Introduction to Exceptional Children 3 cr.

(See General Electives, Education and Psychology Department)

SpH 321 Psychology of Speech and Hearing Handicapped Children 3 cr.

This course provides study of causative influences on, and personality effects of, speech and hearing handicaps. Case studies, case history methods, and parental counseling techniques will be reviewed. Studies in the psychology of the speech and hearing handicapped, together with clinical applications and implications for school policies affecting the welfare of these children, will be considered. The framework and limitations of speech and hearing therapy as psychotherapeutic influence will be stressed. First semester, each year.

(Group 3 — Basic Courses in Elementary Teaching Methods)

El 222 Teaching of Reading 3 cr.

(See Required Courses in Elementary Education, Elementary Education Department)

El 313 Teaching of Arithmetic 3 cr.

(See Required Courses in Elementary Education, Elementary Education Department)

(Group 4 — Professional Education Course Requirement for All Majors)

SpH 411 Organization and Administration of a  
Speech and Hearing Program 3 cr.

This course provides study of the problems in organizing and carrying out itinerant speech and hearing programs. It includes consideration of screening and other case finding methods, scheduling problems, case load, record keeping, public relations, relationships with school administration and staff, and parental counseling. Curriculum materials will be presented and evaluated. Classes and seminars will be conducted. Each semester, each year.

## ELECTIVE COURSES

SpH 251 Anatomy and Physiology of the  
Speech and Hearing Mechanism 3 cr.

This course will consider the muscular, skeletal, and neural contributions to respiration, phonation, resonance, articulation, and audition. Elementary neurological concepts will be studied. Second semester, each year.

**SpH 252 Speech Development and Improvement 3 cr.**

This course, designed for majors and elementary students, includes the study of normal speech development, types of speech and hearing disorders common to the classroom, and procedures for classroom speech improvement. Each semester, each year.

**SpH 352 Stuttering 3 cr.**

Prevalent theories of stuttering and methods of therapy will be studied. Extensive consideration will be given to stuttering diagnosis, direct and indirect therapeutic approaches for young stutterers, and symptomatic therapy for adolescent and adult stutterers. Demonstrations and observations of stuttering therapy will be provided.

**SpH 253 Articulation Disorders 3 cr.**

This course considers the nature of articulatory development, recognized etiologies of articulatory disorders, and principles and methods of diagnosis and therapy. Demonstrations and observations of articulation therapy will be provided. Prerequisites: Speech Problems, Phonetics for Clinicians. Second semester, each year.

**SpH 421 Speech and Hearing Clinic III 2 cr.**

This course provides further advanced practicum with children presenting more severe speech and hearing problems. Prerequisites: Speech and Hearing Clinic II, Articulation Disorders, Speech Pathology, Stuttering. Each semester, each year.

**SpH 353 Speech and Hearing Clinic II 3 cr.**

This course provides advance practicum with children presenting more severe speech and hearing problems. The student is expected to assume greater responsibility and self-direction, even though he will be supervised. Prerequisites: Speech and Hearing Clinic I, Speech Pathology, and Stuttering.

**Psy 215 Child Development 3 cr.**

(See Required Courses in Elementary Education, Elementary Education Department)

**Psy 352 Mental Hygiene 3 cr.**

(See Psychology Electives, Education and Psychology Department)



## ELEMENTARY EDUCATION DEPARTMENT

P. D. LOTT, Chairman of Department

LOIS V. ANDERSON  
WILLIAM C. DAVIES  
RALPH M. GLOTT  
ROBERT C. HAWKINS

ANNA K. O'TOOLE  
JOANN E. WALTHOUR  
MAY E. KOHLHEPP  
EDWARD R. MOTT

## REQUIRED COURSES IN ELEMENTARY EDUCATION

**El 211 Music for the Elementary Grades 2 cr.**

The content of this required course for all Elementary Students includes the following: review of music fundamentals, keyboard knowledge, the teacher's voice, care and development of the child voice, problems of the non-singer, rhythmic activities, listening activities, creative activities, rote to note process, special days, and lesson planning. To get practical application of class activities, students will be assigned observations in the Laboratory School. Emphasis is placed on the primary grades.

**El 212 Teaching of Music in the Elementary Grades 3 cr.**

A continuation of skills and understandings as developed in El 211 is treated with emphasis on methods and materials for the upper grades. Additional opportunities for growth in music reading and part singing are provided. Lessons are developed in correlation of music with other areas. Type lessons are taught by students and constructively evaluated by the instructor and the class. Prerequisite: El 211.

**El 213 Art for Elementary Grades 2 cr.**

The creative growth and development of children are studied. Students are given experiences in the basic art materials and media, as well as opportunity to plan art motivations for children.

**El 214 Teaching Art in Elementary Grades 3 cr.**

This course provides the student with a wide variety of two and three dimensional art experiences with the emphasis on a developmental sequence from simple to more complex variations of a craft. Emphasis is placed on the creative challenges of the art experience.

**Psy 215 Child Development 3 cr.**

This course is designed to enable the teacher to understand and help children. A survey of human development from conception through early adolescence is made in terms of basic scientific data. Developmental growth and behavior are studied and their implications for home, school, and community are considered.

**El 221 Children's Literature****3 cr.**

In this course the students acquire a wide acquaintance with children's literature, old and new. Poetry selections, annotated stories, and bibliographies will be assembled. Ways and means to develop, stimulate, and guide children's reading of literature are presented. Principles and techniques of successful story-telling are studied and practiced.

**El 222 Teaching of Reading****3 cr.**

This course is given before the first student teaching experience. Emphasis is placed upon methods and materials used in the developmental reading program. Its objective is to provide the student with a general background of knowledge and techniques for teaching children in the elementary school to read. Students are introduced to the experience, textbook, and individualized reading approaches to the teaching of reading.

**El 312 Teaching of Elementary Science****3 cr.**

Based on the previous work in science, this course takes up the planning and presentation of material suitable to the elementary field. Students are required to perform demonstrations and take part in science activities which illustrate facts or principles taught in the elementary science program. Considerable attention is given to the literature of the elementary science program as well as other aids such as community resources and simple equipment that can be secured for experimentation and other activities.

**El 313 Teaching of Arithmetic****3 cr.**

In this course emphasis will be given to the place of arithmetic in the elementary school and to the recent changes in curriculum and method; to techniques for developing concepts and processes; to recent research in the field of arithmetic; and to books and material helpful to prospective teachers. Observation of master teachers at work will be planned. Prerequisite: Math 111.

**El 314 Teaching of Health and Physical Education****2 cr.**

This course includes games, stunts, rhythms, relays, tumbling, dances, and skills suitable for the elementary school child. The teaching of health in the elementary school is emphasized. Methods, materials and lesson planning are a part of the course.

**El 411 Teaching of Social Studies and Geography****3 cr.**

This course gives an overview of social studies in the elementary school. It includes study of objectives, trends, areas of content, patterns and principles of organization. The Pennsylvania Course of Study for this area is studied. Emphasis is placed on unification of

subject matter and on implication of research in child development for content and methods. Students will have experience in preparing an individual resource unit and in planning, participating in, and evaluating social studies in class. A variety of learning experiences and materials will be used and evaluated.

### El 413 Teaching Language Arts

3 cr.

This course is designed to give the elementary student a knowledge of the latest techniques, methods, and materials in the language arts area. Research and trends are studied. The fields of handwriting, spelling, oral and written communication, and vocabulary development are included.

### Ed 422 Professional Practicum Including School Law

2 cr.

The professional practicum in elementary education includes a series of conferences and related activities planned to prepare students for experiences which they will meet in teaching. It parallels the student teaching experience in the junior and senior years. Conferences are held with members of the elementary department, supervising teachers of Keith School, off-campus supervising teachers and principals of schools in student teaching centers. Through these planned experiences, students are expected to be able: to know and understand Pennsylvania laws governing education; to discuss adequately problems related to teaching; and to know and use materials of instruction and professional reference reading. A file of materials, required of each elementary student, is used during each student teaching experience and is checked during the senior year.

## ELECTIVE COURSES IN ELEMENTARY EDUCATION

### El 351 Creative Activities in the Elementary School

3 cr.

This course is planned to provide the student with a wide range of creative experiences in the fields of art, crafts, music, rhythmic, dramatics and games in the elementary school. Stress is placed upon the need to help children in developing their capacities for creative expression in these areas.

### El 352 Diagnostic and Remedial Reading

3 cr.

This course is planned for in-service teachers and students who have done their student teaching. It deals with methods and materials which help children who are retarded in reading ability. Attention is given to recent findings in the areas of reading readiness, word recognition including phonics, comprehension, evaluation, and textbook selection.

**El 353 Pre School Education****3 cr.**

Students in this course will be mainly concerned with the five-year-old in kindergarten. Principles and practices of this age group will be studied. Special attention will be given to observations, the kindergarten program and its curriculum, materials, and methods of instruction.

**Ed 355 School and Community****3 cr.**

This course helps to identify and give the techniques for the use of a great variety of community resources that can be used to enrich classroom instruction. Included also is a study of various outside influences on the school and its curriculum and the techniques of public relations that can be practiced by the classroom teacher.

**Ed 356 Guidance in Elementary Schools****3 cr.**

This course is designed to give the student an initial understanding of the guidance of young children. Study and discussion center around the child himself — his characteristics, needs, problems, motives, and relations with others — and around the techniques and procedures for identifying, studying, and giving help to children in respect to these facets of personality.

**El 451 Teaching of Reading in the Primary Grades**

This course is concerned with the teaching of developmental reading, consistent with child growth, in the primary grades.

Methods and techniques for readiness, word perception, comprehension, work-study skills, independent reading in both group and individualized approaches will be studied.

Consideration will be given to the nature of reading, significant research in the field, the curriculum, selection of materials and the use of formal and informal tests.

**El 452 Social Studies in the Primary Grades**

With El 411, Teaching of Social Studies, as a prerequisite, this course will include a more detailed examination of content, objectives, and resource materials for social studies in kindergarten through third grade. Research problems will be examined and representative units developed.

**SpH 252 Speech Development and Improvement****3 cr.**

(See Education Psychology Section.)

## ENGLISH AND SPEECH DEPARTMENT

JAMES R. GREEN, Chairman of Department

MARGARET L. BECK  
WILLIAM W. BETTS, JR.  
LORRIE J. BRIGHT  
MORRISON BROWN  
FAIRY H. CLUTTER  
HARRY E. CRAIG  
CLARENCE J. DENNE  
ROBERT W. ENSLEY  
NORMAN J. FEDDER  
JULIAN B. FICKLEN  
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SAMUEL F. FURGIUELE  
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RAYMONA E. HULL  
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ANN S. JONES  
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ARTHUR F. NICHOLSON  
MAURICE L. RIDER  
GEORGE K. SEACRIST  
CATHERINE P. SHAFER  
HELENA M. SMITH  
ROGER G. STERN  
MARGARET O. STEWART  
RAYMOND THOMAS  
JOHN G. WATTA  
CRAIG G. SWAUGER

## GENERAL EDUCATION COURSES

(Required of all students)

## EngS 101 Communication I

5 cr.

This course is designed to develop skills in the major uses of language through studies in literature, general semantics, the structure of English, and a review of the mechanics of written and oral composition. The student is trained to read and listen perceptively and critically, and to write and speak effectively — especially in those areas which relate to his own observation and personal experience.

## EngS 102 Communication II

5 cr.

This course continues to refine and intensify those skills developed in Communication I, provides additional study and practice in editorial, critical and argumentative exposition, and gives instruction and practice in library research and the writing of the research paper. Prerequisite: Communication I.

## EngS 301 Introduction to Literature

2 cr.

This course should be taken during the junior year. An exploration is made of the various forms of literature, reading for the perception of levels of meaning in works of enduring literary value. Through lecture, discussion and student writing, analysis is made of the relation of structure and form to the content of the works studied.

## REQUIRED AND ELECTIVE COURSES IN ENGLISH

## EngS 211 World Literature 3 cr.

A course for English majors that replaces Literature I and II. The masterpieces studied range from those of ancient Greece to 19th century Europe. English literature and American literature are excluded. Not open to non-English majors.

## EngS 212 American Literature to 1865 3 cr.

This course provides a study of major American writers from colonial times to the Civil War.

## EngS 213 Pre-Renaissance 3 cr.

Beowulf, Chaucer's Canterbury Tales, the Middle English lyric, the popular ballad, and the Arthurian romance are studied in this course.

## EngS 214 Shakespeare 3 cr.

Shakespeare's development as a poetic dramatist is studied against the background of the Elizabethan stage; the audience, textual problems, language, imagery, and philosophy are examined. A few plays are read in detail and others are assigned for rapid reading. Phonograph recordings of complete plays, and of scenes and speeches by professional actors are used.

## EngS 215 Eighteenth Century Literature 3 cr.

This course emphasizes the major works of leading English writers of the late Seventeenth and early Eighteenth Centuries as seen against the political and social backgrounds of the period.

## EngS 216 The Romantic Movement 3 cr.

Basic tenets of Romantic philosophy are examined as they are expressed in the major writings of the period from 1780-1832 — poetry, the essay, and fiction. Special attention is given to the aesthetic creed of the Romantic poets and to the means of interpreting and evaluating their poems.

## EngS 217 Victorian Literature 3 cr.

Essays, novels, and poetry of the second half of the nineteenth century are read with special consideration of the criticism they offer of political, economics, social, and religious practices and creeds of Victorian England.

**EngS 218 The Age of Spenser****3 cr.**

This course surveys the non-dramatic literature of the English Renaissance, with particular emphasis on the poetry of Spenser. Some attention will be paid to both Elizabethan critical theory and classical and continental backgrounds.

**EngS 219 The Age of Milton****3 cr.**

This course includes reading of the metaphysical poets and cavalier poets with concentration on the major poems of John Milton. Some attention is given to the religious and political conflicts of the time as they are reflected in both prose and poetry.

**EngS 221 Journalistic Writing****3 cr.**

This course places special emphasis upon the writing of the news story, the column, the feature, and the editorial. Some attention is given to college and school publications and to make-up and editorial policy. May be substituted for EngS 222.

**EngS 222 Advanced Composition****3 cr.**

This course primarily seeks to improve writing style, particularly in the more utilitarian forms such as the magazine article and the personal essay. Opportunity is offered also for developing creative ability in the more imaginative types such as the short story, the one-act play, and poetry. The student is expected to develop artistic sensitivity in handling and judging language and literary forms.

**EngS 223 Creative Writing****3 cr.**

This is a seminar course in which the kinds of writing done are chosen in line with the special interests and abilities of each student after consultation with the instructor. Prerequisite for admission to this course is demonstrated ability and interest in creative writing. May be substituted for EngS 222.

**EngS 224 The Metaphysical Poets****3 cr.**

The primary objective of this course is to promote a critical understanding of the work of the Metaphysical Poets from Donne to Marvell. Some attention will also be paid to the cultural milieu which gave rise to the genre; i.e., poetic archetypes and the rise of British empiricism.

**EngS 231 The Dramatic Arts****3 cr.**

This course will deal with the basic problems that confront a director of plays in high school. The course will study the principles of play selection, rehearsal procedures, scenic demands, and all other aspects pertinent to a successful production.

**EngS 232 Oral Reading 3 cr.**

Study and practice is given in the fundamentals of oral reading, beginning with the nature and function of the speech mechanism, speech production, and pronunciation with some attention to phonetics. Practice is given in the techniques of effective oral reading.

**EngS 241 The English Novel 3 cr.**

Representative novels are read to trace the rise and development of the English novel from its beginnings to the present day.

**EngS 242 The American Novel 3 cr.**

Novels, ranging from Hawthorne to contemporary pieces of fiction, are read to trace the rise and development of the American novel.

**EngS 243 Contemporary Short Fiction 3 cr.**

In this course attention is given to the form, the structure, and the art of the modern short story, British, American, and Continental.

**EngS 244 Poetry and Its Forms 3 cr.**

This course offers a study in the appreciation of poetry, with special attention to the technique of the poet and the structure of poetry.

**EngS 245 Modern Drama 3 cr.**

The reading of plays will start with Ibsen and other Scandinavian dramatists, followed by plays by outstanding Continental, British, and American playwrights such as Becque, Chekhov, Pirandello, Wilde, Shaw, O'Casey, O'Neill, Williams, and Miller.

**EngS 246 Modern American Literature 3 cr.**

This course provides a study of major American writers from the Civil War to the present.

**EngS 251 The History of the English Language 3 cr.**

The historical development of the English language is studied as a basis for a better understanding of modern American English. An examination is made of changes in sound, vocabulary enrichment from various sources, and changes in syntax and usage. The course is open to students from all departments and curricula, but is especially recommended to elementary majors and English majors.

**EngS 351 English Drama to 1600 3 cr.**

This course traces the development of English drama from 900 to 1600, but does not include the early plays of Shakespeare.



**EngS 352 English Drama, 1600 to 1642** 3 cr.

The English Drama, exclusive of Shakespeare, from the height of the Elizabethan period to the closing of the theaters.

**EngS 353 Restoration Drama** 3 cr.

The history of the drama between 1660 and 1710 is presented through the study of the major plays of the period. The influence of the audience on the playwright's style and actor's technique is demonstrated.

**EngS 354 The History of the Theatre** 3 cr.

A survey of selected major plays from the Greeks to the present in an attempt to define the nature of the dramatic medium.

**EngS 355 The European Novel** 3 cr.

A study in comparative literature which examines the concurrent development of closely aligned themes in representative novels of England, France, Russia, and Germany. The influence of the eighteenth century "initiation into life" novel is shown as an important factor in both the early romantic idealism of the Byron era and the later novels of realism and naturalism.

**EngS 356 The English Essay** 3 cr.

The major essayists are seen both as members of and influences on the society of their time. Emphasis is given to a study of the individual styles of the writers by employing a close textual analysis.

**EngS 357 Modern British Literature** 3 cr.

A survey of selected works of major twentieth century British authors including Forster, Conrad, Lawrence, Joyce, Woolf, Huxley, Yeats, Eliot, and Shaw.

**EngS 358 Criticism of Contemporary Writing** 3 cr.

This course considers recent trends in literary criticism by examining statements of critical principles in the writings of influential twentieth century critics and by applying these standards of evaluation to current literary productions. Not open to freshmen and sophomores.

**EngS 359 Seminar in English Studies** 3 cr.

This course provides an opportunity for the advanced English major to pursue at some length a subject of special interest to him. Independent research will provide the substance for seminar discussions.

**EngS 363 The Structure of English****3 cr.**

Training is given in the analysis of modern English by the methods and materials of structural linguistics. An elementary study of phonology is used as the basis for describing the patterns of the statement, substitution within patterns, the word classes, inflection, and structure words, as well as varieties of modern American English usage. This course is a prerequisite to Ed 451, Teaching English and Speech in the Secondary School.

**Ed 451 Teaching of English and Speech in the Secondary Schools****3 cr.**

This course introduces the student to the current professional practices in the teaching of English and speech in high school. Background for competence in teaching is provided through (1) study of professional literature, (2) individual reports, (3) writing of unit plans and lesson plans, (4) observing teaching in high school classes, (5) participating in class demonstrations, and (6) building a professional file of instructional materials. EngS 363 is a prerequisite to this course, and this course is in turn a prerequisite to student teaching in English.

### **REQUIRED AND ELECTIVE COURSES IN SPEECH AND THEATER**

**EngS 172 Radio I****3 cr.**

This course combining lecture and workshop deals with radio as a resource for the classroom teacher; utilizes live programs, transcriptions and recordings; presents problems of equipment, use, maintenance, and operation of the school radio workshop.

**EngS 214 Shakespeare****3 cr.****EngS 231 Dramatic Arts****3 cr.****EngS 232 Oral Reading****3 cr.****EngS 238 The Nature of Drama****3 cr.**

A study of selected plays of various styles and periods to gain greater understanding and appreciation of the art of drama.

**EngS 245 Modern Drama****3 cr.****EngS 272 Radio II****3 cr.**

This course offers additional practice in radio production, in attaining skill in microphone techniques, and in preparing scripts for routine and special occasions. Prerequisite: Radio I.

EngS 351 English Drama to 1600 3 cr.

EngS 352 English Drama, 1600-1642 3 cr.

EngS 353 Restoration Drama 3 cr.

EngS 354 The History of the Theatre 3 cr.

EngS 371 Directing and Play Production 3 cr.

This course affords each student the opportunity to select, cast, rehearse, and produce a one-act play. Included are suggestions on how to improvise for meeting the demands of small stages.

EngS 372 Phonetics and Voice 3 cr.

This course includes an analysis of speech sounds used in English so that students may develop auditory acuity and correct reproduction of sounds; transcription of spoken material using the I. P. A. system; study of structure and function of speech organs; voice improvement.

EngS 375 Television in Education I 3 cr.

This course stresses television as a medium of instruction both from the viewpoint of the classroom teacher and the producer-teacher. Through workshop experience on campus and at WQED, students learn to plan, to write, and to produce telecasts of an educational nature.

EngS 376 Television in Education II 3 cr.

This course offers additional experience in producing and appearing in educational programs. The facilities of both WFBG, Altoona, and WQED, Pittsburgh, are used.

EngS 377 Creative Dramatics and Story Telling 3 cr.

This course, through workshop experience, stresses creative dramatics as a way of teaching for adults, a way of learning for children in both the elementary and secondary schools. It emphasizes the student planning, acting, and evaluating techniques as they apply to unscripted, spontaneous dramatic expression. As a preliminary to creative dramatics, students learn various techniques in story telling.

EngS 378 Costume and Make-up 3 cr.

This course deals with the practical application of straight and character make-up. Emphasis on costuming to show how mood and illusion can be created through proper selection of style, color, and texture of materials.

EngS 379 Stagecraft 3 cr.

Theories and techniques of designing, building, and painting, of stage settings; organization and operation of production crews.

EngS 381 Fundamentals of Acting 3 cr.

This course gives attention to theory and practice in the techniques of acting. It introduces styles of acting as related to dramatic forms, with emphasis on stage movement and voice projection.

EngS 391 Group Discussion 3 cr.

The nature of discussion and its role in democratic society. Theories related to participation, leadership, and group behavior. Topics for class discussion will center upon current problems.

EngS 392 Occasional Speech 3 cr.

Various formats for the preparation and presentation of the many kinds of speech experiences are studied and practiced in this course.

EngS 393 Applications of General Semantics to Speech 3 cr.

The principles of general semantics will be presented with special emphasis on the application to the field of speech.

EngS 394 Advanced Acting 3 cr.

Students learn how to perform roles through doing scenes from plays. Stress is placed on expressiveness of both the voice and the body.

EngS 395 Playwriting 3 cr.

Theory and practice of playwriting; the reading of selected plays and texts; the writing of various types of scenes and a one-act play.

EngS 396 Television Script Writing 3 cr.

This course stresses the writing techniques involved in commercials, documentaries, demonstrations, interviews, panel discussions and television plays of various kinds. Emphasis is also placed on the limitations of the medium and the terms and symbols used in television scripting.

EngS 397 Scenic Design and Lighting 3 cr.

An analysis of composition and tone relations in designing the settings for plays, and the practical application of the problems that arise. In lighting the student is acquainted with the principles of stage lighting, instruments and materials employed, and the methods of control.

**EngS 469 Oral Interpretation 3 cr.**

This course emphasizes the understanding and appreciation of literature through developing skill in reading aloud. Special attention is given to selecting, adapting, and preparing material for presentation in high school classes.

**EngS 472 Public Speaking 3 cr.**

Fundamental principles of public speaking, audience analysis, interest and attention, selection and organization of speech material, and delivery are taught in this course. Practice in preparation and delivery of extemporaneous speeches will be provided for.

**THE DRAMA WORKSHOP**

By arrangement with the director of the summer theater program, a student from any curriculum of the college may earn three semester hours of credit in the pre-session and six semester hours of credit in the main summer session for any of the following courses:

**EngS 231 The Dramatic Arts ..... 3 cr.****EngS 371 Play Production ..... 3 cr.****EngS 379 Stagecraft and Scenic Design ..... 3 cr.****EngS 378 Costume and Make-up ..... 3 cr.**

## FOREIGN LANGUAGES DEPARTMENT

EDWARD W. BIEGLER, Chairman of Department

MARGARET BIEGLER

WILLIAM F. BISHOPP, JR.

SHOW CHIH RAI CHU

EDITH M. CORD (part time)

CHARLES W. FAUST

HERBERT E. ISAR

CARMEN ISAR (part time)

FRANK E. LANDIS

IVO OMRCANIN

AUDREE MARIE SRABIAN

JOSEF VIDAL-LLECHA

### Required Courses in the General Education Program

Fr 101-102 French I and II	3 cr. each
Ger 101-102 German I and II	3 cr. each
Rus 101-102 Russian I and II	3 cr. each
Sp 101-102 Spanish I and II	3 cr. each

This elementary sequence is designed primarily for the general student who will complete a two-semester sequence only. Its basic objective is maximum reading ability; further but secondary objectives are accuracy of pronunciation, some ability to understand the spoken word and in self-expression, and an introduction to the motives and currents of the background cultures. The formalities of grammar are reduced to their functional minimum in terms of the reading objective. These courses may not be taken for credit by those who have completed a two-year sequence in high school.

Fr 201-202 French III and IV	3 cr. each
Ger 201-202 German III and IV	3 cr. each
Lat 201-202 Latin III and IV	3 cr. each
Rus 201-202 Russian III and IV	3 cr. each
Sp 201-202 Spanish III and IV	3 cr. each

This sequence should be taken in satisfaction of the foreign language requirement by those students who have had two years of the language in high school, and who elect to continue with the same language. Its objectives are those of 101-102 on a higher level.

### Courses Required in French, German, Russian, or Spanish

Fr 151-152 French I and II	3 cr. each
Ger 151-152 German I and II	3 cr. each
Rus 151-152 Russian I and II	3 cr. each
Sp 151-152 Spanish I and II	3 cr. each

This sequence is designed for those who will continue their study through several semesters. Strong emphasis is given to development of oral skills. The student should elect 051-052, Oral Practice I and II, to be taken concurrently.

Fr 051-052 Oral Practice I and II	2 cr. each
Ger 051-052 Oral Practice I and II	2 cr. each
Rus 051-052 Oral Practice I and II	2 cr. each
Sp 051-052 Oral Practice I and II	2 cr. each

This laboratory sequence introduces the phonetic structure of the language, and encourages automatic response to recurring basic phrase units through constant oral drill. Majors must take this sequence concurrently with 151-152.

Fr 251-252 French III and IV	3 cr. each
Ger 251-252 German III and IV	3 cr. each
Rus 251-252 Russian III and IV	3 cr. each
Sp 251-252 Spanish III and IV	3 cr. each

This intermediate sequence for majors and minors aims toward further development of the basic skills. On completion of 251-252 and 053-054, the student should be able to read standard modern French, German, Russian, or Spanish with little difficulty, understand what is said to him, and express himself in familiar situations.

Fr 053-054 Oral Practice III and IV	2 cr. each
Ger 053-054 Oral Practice III and IV	2 cr. each
Rus 053-054 Oral Practice III and IV	2 cr. each
Sp 053-054 Oral Practice III and IV	2 cr. each

This advanced laboratory sequence is a continuation of 051-052, and carries oral skills to a higher level. It should be taken concurrently with sequence 251-252.

Fr 351-352 Advanced French Language	3 cr. each
Ger 351-352 Advanced German Language	3 cr. each
Rus 351-352 Advanced Russian Language	3 cr. each
Sp 351-352 Advanced Spanish Language	3 cr. each

This sequence reviews and supplements the grammar of earlier courses, and aims toward a systematic analysis of the structure of the language. Some attention is given to the historical background of the language, particularly those phases which lie beyond apparent irregularities and anomalies. Frequent original themes are required in the second semester.

Fr 361-362 Development of French Culture and Literature I and II	3 cr. each
Ger 361-362 Development of German Culture and Literature I and II	3 cr. each
Rus 361-362 Development of Russian Culture and Literature I and II	3 cr. each
Sp 361-362 Development of Hispanic Culture and Literature I and II	3 cr. each

This course sequence examines the historical and cultural aspects of the countries involved, reviews their characteristic contributions over the centuries, and analyzes the relationship of each literary school to the moment which produced it.

#### Ed 451 Teaching of Foreign Languages in the Secondary School 3 cr.

The objective of this course is to prepare teachers of modern foreign languages for the modern high school. It considers methods and materials of instruction, current theories and techniques, and requires preparation and presentation of illustrative units.

#### Elective Courses in French

Fr 055 Advanced Oral Practice I 1 cr.

Fr 056 Advanced Oral Practice II 1 cr.

These are relatively informal conversation courses which the student may elect after completion of the required oral practice sequences. They meet two periods per week.

Fr 291 Special Projects I 1-3 cr.

Fr 391 Special Projects II 1-3 cr.

These courses are planned to satisfy the special needs of an individual or a group as they may arise.

Fr 365 Seventeenth Century French Literature 3 cr.

Fr 366 Eighteenth Century French Literature 3 cr.

Fr 367 Nineteenth Century French Literature 3 cr.

Fr 368 Twentieth Century French Literature 3 cr.

These courses are designed to present general surveys of the literature of their respective periods, with due consideration of the social factors and events behind them.

Fr 371 The French Novel 3 cr.

This course constitutes a coherent survey of the origin and development of the French novel. A selected list of works representative of the major modes are read in their entirety.

Fr 372 Studies in Contemporary French Literature 3 cr.

The content of this course will vary in accordance with the needs and interests of those who will elect it.

#### Elective Courses in German

Ger 291 Special Projects I 1-3 cr.

Ger 391 Special Projects II 1-3 cr.

These courses are planned to satisfy the special needs of an individual or a group as they may arise.



## Elective Courses in Russian

Rus 291 Special Projects I	1-3 cr.
Rus 391 Special Projects II	1-3 cr.

These courses are planned to satisfy the special needs of an individual or a group as they may arise.

NOTE: Further courses will be offered in German and Russian as the respective programs develop.

## Elective Courses in Spanish

Sp 055 Advanced Oral Practice I	1 cr.
Sp 056 Advanced Oral Practice II	1 cr.

These courses parallel Fr 055 and 056, q. v.

Sp 291 Special Projects I	1-3 cr.
Sp 391 Special Projects II	1-3 cr.

These courses parallel Fr 291 and 391, q. v.

Sp 365 Spanish Literature Before 1650	3 cr.
Sp 367 Nineteenth Century Spanish Literature	3 cr.
Sp 368 Twentieth Century Spanish Literature	3 cr.

These courses are designed to present general surveys of the literature of their respective periods, with due consideration of the social factors and events behind them.

Sp 370 Golden Age Drama	3 cr.
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This course traces the development of Spanish theater and examines its flowering in the Baroque period.

Sp 371 The Spanish Novel	3 cr.
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These courses are planned to satisfy the special needs of an individual or a group as they may arise.

Sp 376 Spanish-American Literature	3 cr.
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Following a consideration of the salient tendencies of Spanish-American literature, this course may take the form of a comprehensive survey, or it may concentrate its attention upon the recent novel of social thesis.

Sp 390 Spanish in the Elementary School	3 cr.
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In this course the prospective teacher of Spanish on the elementary level is introduced to materials suitable for grades 1-6. Much time is devoted in the language laboratory to the preparation of games, songs, poems, and story telling. Prerequisites: Sp 251-252 (III and IV).

## GEOGRAPHY DEPARTMENT

THOMAS G. GAULT, Chairman of Department

MAMIE L. ANDERZHON

DONALD J. BALLAS

JAMES E. McCONNELL

VINCENT P. MILLER

JAMES E. PAYNE

PAUL A. PRINCE

ROBERT N. THOMAS

CHARLES E. WEBER

DAVID C. WINSLOW

## GENERAL EDUCATION COURSES

### Geog 101 World Geography

3 cr.

(Prerequisite to all geography courses numbered above 200)

The purpose of this course is to develop a knowledge and appreciation of patterns of the natural environment throughout the world, with special emphasis on man's adjustment to these environments. Understanding and appreciation of man's interrelationship with the earth are accomplished through the study of the physical, cultural, economic, and demographic factors.

### Geog 112 Geography of the United States and Pennsylvania 3 cr.

This course gives a comprehensive treatment to the adjustments of the people of Pennsylvania and the United States to the physical factors — structure, relief, climate, soils, and natural resources — which influence their way of life. The interrelationships between the United States and Pennsylvania, and the United States world relations are stressed.

## EARTH SCIENCE COURSES

### E.Sci 151 Earth and Space Science

3 cr.

(This course may not be taken by majors or minors.)

Spatial relationships in the universe, origin of the earth, structure and composition of land masses, the nature of oceans, the face of the land and water surfaces, the activities of the atmosphere are given special attention. This survey course is designed to give the non-major or non-minor an introduction to the physical environment wherein he lives.

### E.Sci 153 Physical Geography

3 cr.

(May be taken in lieu of Geog 111)

This course describes and depicts the major physical elements of geography by interpreting their distribution over the earth so that the student will come to have an understanding of the nature and origin of the larger geographic patterns and their areal associations. It will present useful earth science data, principles, and techniques which will enable the student to understand advanced and highly specialized instruction in map reading, terrain analysis, navigation and meteorology.

**E.Sci 241 Climatology**

3 cr.

This course is primarily concerned with understanding the elements of weather and climate. The climatic regions of the earth, their limitations and advantages are studied with reference to what they offer man's occupance. This course is a valuable aid to students of World Problems. Understanding and application are underscored in the laboratory.

**E.Sci 249 Meteorology I**

4 cr.

This course analyzes the laws and underlying principles of atmospheric changes. An opportunity is given for students to become familiar with common weather instruments, to read and interpret weather maps, to observe and record weather data, and discuss problems arising from the use of the atmosphere as a medium of travel and transportation. Record keeping, problem solving and laboratory experiments lead to an understanding of weather forecasting, etc.

**E.Sci 246 Physiography I**

4 cr.

This course involves a detailed study of the physical geographic phenomena of the earth, sun, moon, relationship and of the creation, structure and distribution of landforms such as mountains, river systems, glaciers, plateaus. It provides the student with an understanding of the natural base on which the role of human activity is performed. Understanding and appreciation are increased through field trips and laboratory experimentation.

**E.Sci 248 Composition and Structure of Earth's Crust**

4 cr.

This course treats the nature and properties of the materials composing the earth, the distribution of these materials throughout the globe, the processes by which they are formed, altered, transported and distorted. It also considers the nature and development of the landscape and its economic use.

**E.Sci 351 Introduction to Oceanography**

3 cr.

A study of the geography of the oceans and their phenomena. The course deals with the nature of the water, oceanic currents and drifts, water temperatures and depth, the ocean floor, and the flora and fauna. It will also consider the distribution, shape and size of the various ocean bodies, shorelines, and change in these phenomena.

**E.Sci 464 Field Techniques in Earth and Space Science**

3 cr.

Field techniques will acquaint the student with the tools of Earth and Space Science. It will provide first hand experiences in the field with geology, meteorology, hydrology, soil, conservation, and astronomy. (Prerequisite - 12 s.h. in Earth Science.)

## REGIONAL COURSES

**Geog 251 Geography of the United States and Canada 3 cr.**

This course is a regional study of the United States and Canada, concerned with the investigation of man's adjustment to his environment as determined by the physical factors of climate, vegetation, relief, soils, and natural resources. Recognition of political adjustments to the geographic environment, and the interrelations between the two countries and the rest of the world.

**Geog 252 Geography of Pennsylvania 2 cr.**  
(Prerequisite — United States and Canada.)

This course is especially designed for majors. The topography, climate, natural vegetation, natural resources, population, agriculture, manufacturing, mining, etc., are treated. Internal and external relationships are studied to gain an insight into the various regions of the state and Pennsylvania's world relationships.

**Geog 356 Geography of Europe 3 cr.**

The aim of this regional course is to help students acquire the ability to find and apply geographic relationships underlying land use, dominant international problems, boundary disputes and the regional complexes of the European continent. Special attention is paid to the natural and cultural patterns as developed in modern times.

**Geog 257 Geography of U. S. S. R. 3 cr.**

Special emphasis is placed upon the major geographic regions of the Soviet Union. Human adjustment to the physical environment of the various regions is given major consideration. Natural resources, cultural patterns, population — both numbers and distribution, strategic areas and related geopolitical problems are studied.

**Geog 361 Geography of Far East 3 cr.**

This course includes a study of Korea, Manchuria, Outer Mongolia, Japan, and China. It involves an intensive investigation of the natural factors and man's adjustment to them. This is accomplished through the study of the geographic, economic and political regions of eastern Asia. The geographic background needed in planning solution for raising the standards of living, for the wise use and restoration of natural resources, and the industrialization of countries is presented.

**Geog 362 Geography of Southeast Asia 3 cr.**

India, Pakistan, Indochina, Ceylon, Burma, Thailand, and Indonesia are the major areas studied. Students are given an understanding of the geographic relationships that affect land use, land reform,

population, industrialization, nationalism, and boundary disputes. Special attention is given to regional similarities and differences, particularly as they pertain to human adjustment.

**Geog 363 Geography of North Africa and Southwest Asia 3 cr.**

This course includes a study of the countries north of and including the Sahara Desert in Africa, Turko-Arabian peninsulas and Afghanistan in southwest Asia. Emphasis is placed on the critical problems of water supply, land use, over-population, industrialization, resources and the relations of these countries to other parts of the world.

**Geog 371 Geography of South America 3 cr.**

In this course a regional study is made of South America. Special emphasis is placed on regional differences and similarities. South American relations with other areas, especially the United States, are stressed. Emphasis is placed upon the unique problems of South America, with special attention to tropical land use.

**Geog 372 Geography of Middle America 3 cr.**

The regional method is applied to Mexico, Central America and the West Indies. Similarities and differences are noted both in the natural and cultural landscapes. Special emphasis is placed upon cultural relationships and problems evolved from international commerce and trade. The effects of the United States economy upon these areas are given serious attention.

**Geog 381 Geography of Africa, South of Sahara 3 cr.**

This is a regional study of Africa south of the Sahara, which considers the activities and the educational, social and economic development of the peoples of the different regions, especially in their relationship to the physical environment. The geographic aspects of the problems of race, use of resources, land ownership and use, labor supply, political set-up, and future development of the region are presented.

**Geog 391 Geography of Australia and Pacific Islands 2 cr.**

Australia, New Zealand, and the Pacific Islands are studied. Cultural patterns in relation to natural environments are considered to discover interrelationships. Geographic aspects of land tenure, race, population, location, geopolitics and the strategic importance of the various areas are considered.

**Geog 392 Geography of Polar Regions 2 cr.**

Both Antarctica and the North Polar Area are studied setting forth (1) the history of their exploration, (2) the physical environment, (3) the importance of the regions and of knowledge concerning the areas, and (4) future use and control of the areas.

## ECONOMIC GEOGRAPHY COURSES

Geog 149 Economic Geography 3 cr.

This course develops an understanding of world patterns of producing and consuming regions, population distributions, world trade routes, and related natural factors. It also deals with the applications of these understandings to the solution of national and international economic problems.

Geog 452 Conservation-Resource Use 3 cr.

This is a comprehensive survey of conservation in natural and human resources. It stresses regional understandings; accomplished through inventory, planning and utilization evaluation. Field work, workshop activities, projects, and use of resource specialists are an integral part of the course.

Geog 354 Trade and Transportation 3 cr.

This course includes a study of trade and transportation, this includes ports, railroad center, hinterlands, trade centers and trade relations between production and consumption as well as between countries.

## OTHER ELECTIVE COURSES

Geog 154 Cultural Geography 3 cr.

(Prerequisite — World or Physical Geography)

This course includes study of the geographical aspects of population, settlement, ethnogeography, and the cultural landscape. It considers the relationships of various ethnic and cultural groups to the natural environment. The student is acquainted with the tools, philosophy, and literature of cultural geography and related disciplines.

Geog 353 Geographic Influences in History 3 cr.

This course is a study of the relationship of the natural environmental factors to the settlement, development, and progress of selected countries — with major emphasis on the United States. Prerequisites: World Geography and Geography of the United States and Canada.

Geog 255 Cartography 3 cr.

This course is designed primarily to enable the student geographer to attain proficiency in the use and interpretation of maps, globes, cartograms, and geographic diagrams. The history of maps; the development of signs, symbols, map scales; the construction of projections, graphs, and diagrams; and, the application of each of these to the teaching of geography are stressed.

Geog 454 World Problems in Geography 3 cr.

This course considers world problems and the geographic backgrounds necessary in understanding them. Attention is given to

boundary questions, the value and control of colonies, fishery agreements, problems concerning commercial aviation, world trade, world food resources, control and development of natural resources, the making of peace, and similar topics.

**Geog 453 Political Geography** 3 cr.

This course considers geographic elements as related to geo-political concepts, types and distribution of political systems, major political units and association, factors which influence political power, areas of friction, conflict and arbitration.

**Geog 461 Field Trips in Geography** 3 cr.

These courses, which involve the study of a selected area through the agencies of travel and actual investigation, are arranged from time to time to suit the needs of the student group.

**Geog 462 Field Course in Geography** 3 cr.

This course proposes to give experiences in the study of land utilization and use of geographic tools and techniques in the field.

**Geog 441 Geography Seminar** 1 or 2 cr.

This course is limited to senior geography majors. The emphasis will be upon individual study, research, and presentation of geographic data — both written and oral. This course will be offered every semester and all senior geography majors are required to complete this for major in education or in an area of concentration within the Liberal Arts.

## PROFESSIONAL EDUCATION COURSES

**Ed 451 Teaching of Geography in Secondary Schools** 3 cr.  
(Prerequisite — 18 semester hours of geography)

This course is an intensive study of modern techniques for teaching geography, of geographic materials, and of current curricula in geography. Emphasis is placed on the contribution of geography to the solution of national and world problems. Juniors or seniors may schedule this in consultation with Chairman of Department.

**Ed 452 Teaching of World Cultures** 3 cr.  
(Prerequisite — 18 semester hours of geography)

The course will emphasize modern techniques of teaching "World Cultures." Major study will be directed to the place of "World Cultures" in the curriculum, selection of texts, source materials for classroom use, and the preparation of resource and teaching units. Additional study will better enable the classroom teacher to maintain the proper balance between Geography and Social Studies in the preparation of the "World Cultures" course.

## HEALTH AND PHYSICAL EDUCATION DEPARTMENT

JOHN CHELLMAN, Chairman of Department

OWEN DOUGHERTY  
ANN ELLIOTT  
BEVERLY LUCAS  
MARGARET M. MARTIN  
EUGENE E. LEPPLEY

REGIS McKNIGHT  
RUTH PODBIELSKI  
LEWIS SHAFFER  
SAMUEL SMITH  
MORTON J. MILLS

The Health and Physical Education Department provides required Health and Physical Education courses for all students in all curricula, a number of elective courses for those seeking certification in the field of Education for Safe Living and some non-credit activity courses.

The Health and Physical Education Department serves the college by means of:

1. Required courses in Health and Physical Education which help the student develop usable physical skills and health knowledge.
2. Professional courses in health, physical education and safety which will prepare the student to be a competent teacher in these areas.
3. Provides opportunities for participation in worthwhile leisure time activities which can be used throughout life.

The usual programming pattern for meeting the four-hour physical education requirement is as follows: Students taking Health the first semester will take Physical Education I the second semester; conversely, students taking Physical Education I the first semester will take Health the second semester. Physical Education II will be scheduled for the third or fourth semester. The three required courses will be offered each semester in order to alleviate scheduling difficulties.

## GENERAL EDUCATION COURSES

(Required of all students)

### HPe 101 Health

2 cr.

This course includes the study of individual and community health problems with the primary emphasis placed on the improvement of the student's own health.

### HPe 102 Physical Education I

1 cr.

This course provides a program of carry-over sports and activities which improve general physical fitness and develop usable physical skills. Students in this course will be required to pass a proficiency examination in swimming.



**HPe 203 Physical Education II**

1 cr.

This course provides an opportunity to develop additional sport skills not covered in P.E. I. The student is also taught game strategy, advanced skills and new techniques used in various activities.

**REQUIRED IN ELEMENTARY EDUCATION****EI 314 Teaching of Health and Physical Education**

2 cr.

This course includes games, stunts, rhythms, relays, tumbling, dancing and skills suitable for the elementary school child. The teaching of health in the elementary school is emphasized. Methods, materials and lesson planning are a part of the course.

**ELECTIVE COURSES****HPe 204 First Aid**

1 cr.

This course provides the student with an understanding of the practices and skills used for the proper care of all types of injuries.

The American Red Cross Standard and Advanced Certification cards are issued upon successful completion of the course.

**HPe 261 Red Cross Lifesaving and Swimming**

1 cr.

The college cooperates with the American Red Cross in conducting lifesaving and swimming courses in the college pool. Many students earn the Senior Lifesaving certificate which enables them to acquire jobs in summer camps, pools and other places where lifeguards and swimming instructors are needed.

**HPe 262 Water Safety Instructor**

1 cr.

The Water Safety Instructor's Course is offered to those students who have successfully completed the Senior Lifesaving Course. It emphasizes the teaching aspect of the skills, techniques and attitudes that are necessary in all areas of swimming.

Those students who successfully complete the course are qualified for such positions as waterfront directors, aquatic director and other similar positions.

**NON-CREDIT ACTIVITY COURSE****Beginner Swimming**

This course teaches the non-swimmer to swim. It provides instruction in the various swimming strokes, elementary diving and simple water skills which serve as the basic structure for safe, enjoyable swimming for the beginning student. This course is required for all students registered in Physical Education I who do not pass the required swimming examination.

## CERTIFICATION IN THE FIELD OF EDUCATION FOR SAFE LIVING

### HPe 251 Introduction to Safety Education 3 cr.

The Introduction to Safety Education course is one which will be valuable to teachers of all grade levels and all departments. It deals with the recognition of unsafe conditions and practices, and the methods by which they may be eliminated or minimized, in an accident prevention program. The study includes home, school, occupational, and public safety.

### HPe 252 Driver Education 3 cr.

Driver Education is a combination of class instruction in traffic safety and driver training in actual behind-the-wheel practice in a dual control car. It prepares the student to teach driver education in a high school. The prerequisites for the course are: the student should have driving ability above the average and evidence of holding a driver's license, plus at least two years of driving experience without having a major accident for which the driver is responsible.

### HPe 254 Organization and Administration of Safety Education 3 cr.

The Organization and Administration of Safety Education deals with the basic principles of organizing, administering and supervising safety education procedures in schools. A large part of the course is devoted to methods of teaching pupil safety activities in school and community.

### HPe 253 Methods and Materials in Safety Education in the Secondary Schools 3 cr.

Methods and Materials in Safety Education in the Secondary Schools is a course that emphasizes the use of correlating and integrating safety with many different subjects and school activities, teaching as a separate subject and centering safety education around pupil organizations and special projects.

## HOME ECONOMICS DEPARTMENT

OPAL T. RHODES, Chairman of Department

PATRICIA ANN BELL  
HELENA JENSEN  
ALMA KAZMER  
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ELIZABETH HEARN LaVELLE  
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LEOLA H. NORBERG  
MILDRED E. OMWAKE  
FANNIE DEE SMITH

Required Courses for Home Economics  
Teacher Education Students Only

HE 112 Clothing I Construction and Care 3 cr.

The student's choice of fabrics and design is based on her previous experience in clothing. Emphasis is on selection of appropriate construction processes to produce garments better than higher priced ready-mades. Involved are skilled use of the sewing machine and efficient management for quicker garment making. The sizing and fit of commercial patterns are studied. Care of clothing is emphasized. Approximate cost of fabrics for 3 garments \$20.00.

HE 213 Principles of Design (See Art Department) 2 cr.

HE 311 Family Health 1 cr.

Family health problems are recognized and solutions investigated. An understanding of the part the home plays in positive health is developed. Principles of the care of the sick in the home and needs in time of disaster and emergencies are studied. Practical laboratory experience is provided. American Red Cross requirements are met.

HE 412 Nursery School 2 cr.

Opportunity for observation, study, and care of children between 2 and 5 is provided.

HE 415 Methods in Teaching Home Economics (Vocational) 3 cr.

This course is a prerequisite to Student Teaching and is taken concurrently with Ed 422 Professional Practicum (1 sem. hr.). Students are helped to recognize, understand and solve problems of the homemaking teacher. Some teacher responsibilities considered are understanding pupils, homes, families, and communities; curriculum planning; teacher-pupil planning; teaching methods, techniques and aids; home visits and guided home experiences; adult education; homemaking in elementary schools; homemaking for boys and co-educational classes; learning and evaluation; The Future Homemakers of America; and class and department management.

**Ed 421 Student Teaching (Resident) 8 cr.**

Student teachers live in typical communities and teach in superior departments which include all areas of home economics instruction under the supervision of a master teacher. Saturday campups conferences provide for study, help with professional problems and an exchange of ideas and experiences.

**Ed 422 Professional Practicum 1 cr.**

Observation and participation in secondary home economics classes parallel methods so that students gain an at home feeling in the classroom and a knowledge of theory in practice. Children, selected educational experiences and materials, motivation and guiding of learning, and selection and organization of subject material from the Pennsylvania Resource Materials 1962 are studied. Elementary and adult classes are also included.

### REQUIRED COURSES FOR SCHOOL FOOD SERVICES STUDENTS ONLY

**HE 313 Food Service Management 3 cr.**

This course provides instruction and fundamental experiences essential to quantity food service. These experiences include planning, preparing and serving lunches that are nutritionally adequate, attractive and inexpensive. The requirements of the National School Lunch Program are emphasized.

**HE 356 Food Service Administration 3 cr.**

In this course emphasis is given to the problems of management such as professional standards and ethics, personnel, policies and management, organization and administration, sanitation and cost control. Field trips to various types of food service units are included.

**HE 358 Food Service Equipment and Layout 3 cr.**

Selection, arrangement and care of equipment and furnishings for food service organizations.

**HE 359 Food Purchasing 3 cr.**

Standards of quality, food laws, food cost factors, distribution and storage of food supplies to serve as a basis for purchase of such commodities for school food service.

**HE 360 Accounting for Food Service Operations 3 cr.**

Business procedures and practices; the use of accounting as a managerial tool; introduction of the basic theory of accounts; knowledge and skill adequate to keep books for a food service operation; journalizing, posting use of ledger accounts, closing of books of original entry and statement preparation.

**HE 361 Food Service Experience**

6 cr.

Experience in a public school food service in the supervision of the school lunch program through participating in planning, marketing, preparation of food, serving, direction of paid and non-paid helpers, care of equipment, and keeping the books. Making the school lunch room a part of the total education program is emphasized.

**HE 364 Methods in Teaching**

3 cr.

An intensive study is made of Home Economics as it is related to and interrelates with the entire school and educational program. Curriculum, teacher responsibilities, pupil-teacher planning, home-school relations, teaching techniques and aids, learning, evaluation and special school functions are studied. Observations are included.

**COURSES REQUIRED IN BOTH FIELDS****HE 111 Foods I (Meal Management)**

3 cr.

Basic principles of meal planning, food selection and preparation are covered as they relate to family meals. Table service and marketing are included. Demonstrations and other teaching techniques give emphasis to the preparation for teaching. Laboratory work provides experience and evaluation of standards. Three nurses' uniforms and comfortable white shoes are needed.

**HE 113 Management and Equipment**

2 or 3 cr.

Management, decision making relative to the administration of a home, is emphasized. Principles needed for the wise selection, efficient operation and care of kitchen, laundry, and other household equipment are studied and applied. Comparative studies of operation and efficiency of various kinds of equipment, procedures and cleaning materials, and work processes are emphasized. Good management in arrangement, storage and working heights and procedures that will save time, energy, and money and secure good results in family living form the basis of the course.

**HE 211 Foods II (Advanced)**

3 cr.

Foods studied and prepared present more advanced problems in cookery and meal service than those of Foods I. Some of these relate to food preservation, freezing of foods, meat and poultry selection and cookery, methods of making breads, cakes and pastry, sugar cookery and frozen desserts. Recent research and improved methods of cookery are considered. Demonstrations and other teaching techniques serve as a preparation for teaching.

**HE 212 Nutrition**

3 cr.

Positive relation of food to health is emphasized. Signs of good and poor nutrition, functions of nutrients, interdependence of dietary essentials, and nutritive essentials of an optimum diet are studied. Nutritional requirements in infancy, childhood, adult life, pregnancy, lactation, the aged, common nutritional deficiency and disorders are emphasized. Adequate diets for the different economic levels, and racial and national backgrounds are considered. Food additives and food fads and fallacies are also studied. Laboratory work provides for further understanding of these problems. Organic Chemistry is a prerequisite or parallels nutrition.

**Psy 215 Child Development**

3 cr.

The physical, emotional, social and intellectual development of the human from conception through early adolescence is considered. Studies and research from psychology, anthropology, science, medicine and sociology contribute to a better understanding of normal behavior and wiser guidance of the child as he progresses toward optimum development in the home, school and community. Conditions held to be essential for wholesome growth are analyzed. Reasons for and values in individual differences are sought.

**HE 216 Clothing Selection**

2 or 3 cr.

Supervision of wardrobe planning and clothing selection is provided. Personality, coloring and figure variations are studied in relation to color, texture and design. Clothing decisions are made in relation to the individual, family needs and the income. Knowledge of laws governing labeling are studied and their implications investigated. Class experience aims to create a consciousness of the value of being well groomed and to provide techniques for accomplishing this.

**HE 217 Home Planning and Furnishing**

3 cr.

Problems confronting families in finding suitable housing are considered. Community planning, selection or construction of homes, factors affecting cost and quality, legal aspects, plans for convenience, comfort and aesthetic values and maintenance are studied.

The ability to create attractive livable homes through the selection of suitable furnishing is the goal. Arrangement for convenience and comfort and remedies for problem rooms and houses are sought. Practical problems are selected.

**HE 314 Textiles**

2 or 3 cr.

Fibers, fabrics and finishes used in clothing and household textiles are investigated from the standpoint of quality, cost and type of cleanliness care needed. Consumer and care problems in clothing and household textiles are studied in relation to the family's needs, facil-

ities and income. Knowledge of laws governing labeling of fibers, fabrics and clothing are supplied to clothing and household merchandise as sold in stores.

### HE 315 Consumer Economics and Family Finance

(Money Management)

3 cr.

Economic, sociological and psychological principles and factors are applied to family money management. Production, distribution, retailing, consumer protection and aid are investigated. Income (real and psychic), budgeting, installment buying, savings and investment, banking and wise use of time, materials and human resources are related to consumer satisfactions. Ways of living better on a given income are emphasized.

### HE 411 Family Relations

3 cr.

Students have opportunity to gain knowledge and understanding of personality development and the importance of early family and community influence in well adjusted lives and family stability. Emphasis is on preparation for marriage and problems of human relations within homes. Reading, discussion, and conferences are used in facing and solving problems.

### HE 414 Home Management (Residence)

3 cr.

Students experience decision making in group living. Managerial ability, values, goals, and satisfying human relations are developed as family members care for the baby; shop; plan, prepare and serve attractive, nutritious meals; use and care for equipment and furnishings and in other ways provide for individual and group home needs and social functions.

## ELECTIVES FOR HOME ECONOMICS DEPARTMENT

### Ed 101 Professional Orientation

3 cr.

This orientation and guidance course is designed to acquaint prospective teachers with the opportunities and requirements of their profession, the relationship of the school to society, the organization of the American school system, the pupil and the educational process. Extensive directed observation of various schools and learning situations will be required.

### HE 214 Clothing II (Fitting and Pattern Study)

2 cr.

An intensive study of the practical methods of solving fitting problems and applying the principles of dress design form the basis for this course. Practical applications are made. Cost of materials is approximately \$15.00. Prerequisite: Clothing I.

**HE 215 Home Furnishing****3 cr.**

Through the application of art principles students develop the ability to create attractive livable homes and judgment in selecting and purchasing suitable home furnishings. Floors, walls and windows, the arrangement of furniture and furnishings and remedies for problem rooms and houses are studied. Improvising; mending, remodeling and refinishing furniture; making curtains, slip covers, draperies, etc., provide practical problems.

**HE 312 Housing****2 cr.**

Housing problems of families and communities are considered. Architectural designs, floor plans, processes in construction, factors affecting cost and quality, financing, legal aspects, heating, ventilation, lighting, plumbing and maintenance are studied. Convenience, comfort and aesthetic values are emphasized. Extensive reading, projects and field trips are expected.

**HE 351 Nutrition Education (School Children)****2 cr.**

Menu making and principles of nutrition are applied to growth needs, economic levels, and social and nationality background. The contribution of the school lunch program in the nutrition of children is emphasized.

**HE 352 Nutrition Education (pre-school)****2 cr.**

Nutritional needs of children are studied, menus planned and meals served. The children's responses are noted and guided. Social, economic, racial and nationality influences are observed and studied.

**HE 353 Clothing IV (Millinery and other Accessories)****2 cr.**

An appreciation of what constitutes a complete, appropriate and aesthetical pleasing ensemble is developed. Selection, construction and remodeling hats for different seasons is included. Costume accessories are designed and selected.

**HE 354 Clothing V (Special Problems in Clothing)****3 cr.**

Clothing problems met by individuals, families and teachers are solved. This course provides excellent opportunities for students who have had too little experience in construction and other clothing problems. Prerequisite: Consent of the instructor.

**HE 355 Diet Therapy****3 cr.**

A study is made of diet problems of infants, growing children, the aged, pregnant and lactating women, and diseases such as diabetes, nephritis, gastrointestinal disease and others needing special dietary treatment. Special diets are planned, calculated, and prepared. The course is planned for students desiring advanced nutritional study. Prerequisites: Foods I, Nutrition, Chemistry, Physiology or Biology.



**HE 357 Special Problems in Foods** 3 cr.

Foods of different nations and for special occasions are studied from a cultural and economic point of view. Demonstrations are emphasized. Food interests of individuals may be met. Prerequisites: Foods I, and II or the instructor's permission.

**HE 362 Experimental Foods** 3 cr.

Experimental Foods is designed as a study of food preparation based upon the scientific method wherein effects of chemical and physical principles are observed. This will be accomplished by investigating problems of a group as well as on an individual basis. Studies on fruits, vegetables, gelatin products, meat, milk, eggs and baked goods will be covered in laboratory preparation. Problems studied in the laboratory will be analyzed and observed objectively with resulting conclusions set forth in written reports. Prerequisites: Foods I and II and Organic-Biochemistry.

**HE 363 The Family and the Community** 3 cr.

An intensive study is made of community contributions and problems that affect the family as well as of the contributions of families to the community. Group dynamics, media of communication, and other experiences that aid understandings of human processes and that develop leadership will be investigated and used. Field work is an integral part of the course.

**HE 403 Home and Family Living** 3 cr.

Economic competency for the consumer is stressed. Nutritional, housing, home furnishing, household equipment, health, clothing, transportation and operational needs of families are studied. Insurance, investment and financing purchases are studied. Information is gained so that each family may derive the greatest benefits and satisfactions within their income and values. This course not only meets the needs of non-majors but provides a review for home economists returning to the profession and up-to-date material in the many areas of Home Economics.

**HE 413 Consumer Economics** 2 cr.

Sociological and psychological reactions are discussed in relation to customs, advertising and income. Knowledge of production, distribution, retail merchandising and consumer buying is fundamental to wise use of resources. Emphasis is placed on use of governmental and other aids to consumers. Studies are required of each student. Gaining maximum satisfaction from goods and services available to each family is an important goal.

**HE 416 Family Finance****2 cr.**

Economic principles underlying personal and family financial problems are studied. Sources of income; how family members can reduce expenditures through wise use of time, material and human resources, increasing real and psychic income, accounts; savings and investments; legal contracts; banking; home production; the optimum use of social income sources; and planning for the wise use of the family income are all studied. An understanding of what low incomes mean in terms of living is sought. Living better on an income is emphasized.

**HE 417 Clothing III (Tailoring)****2 cr.**

A coat or suit is tailored. The selection, care and repair of tailored clothes is emphasized. Additional ability is gained in the use of patterns and in construction methods. Cost of fabric is approximately \$25 to \$30.

**HE 421 Pre-School Education (ages 2-5)****4 cr.**

Actual experience in assisting a master teacher in a nursery school is required. Experience includes observation of and work with children in a variety of situations. Specific children are studied intensively and research is investigated as a basis for understanding child behavior and to help in guidance. Prerequisites: General and Educational Psychology, Child Development and Nursery School.

**HE 422 Early Childhood Education (Equipment and Materials) 2 cr.**

Materials, stories, activities, situations and equipment that will aid in the physical, social, emotional and intellectual development of pre-school children are studied. Children and variations of behavior are observed as 2, 3 and 4-year-olds react and interact. Prerequisites: Child Development and General Psychology.

**HE 423 Marriage and Family Relations****3 cr.**

Emphasis will be on the development of an understanding of interpersonal relations and adjustments within family living. Potential problem areas of marriage and possible reactions will be explored to develop an understanding of what constitutes good adjustment. Interviews, projects, observations, case-studies, discussions and conferences will be used. Prerequisite: Family Relations.

**HE 424 The Family****3 cr.**

Students will be able to concentrate on and study intensively specific areas of family life. Interpersonal relationships and the family as a group and social institution will be the focus. Group projects and study, panel discussions and conferences will be used in addition to extensive reading of research and other literature.

**HE 450 Industrial Relations (psychological and personnel) 2 cr.**

The psychology of personnel-supervisor relations is studied and personnel management policies formulated. The problems of employees are investigated. Prerequisites: IIE 313 and General Psychology.

**HE 451 Clinic in Home Economics Education 3 cr.**

This course is planned to meet the needs of experienced teachers and of college Home Economics graduates expecting to return to teaching. Educational philosophy as it applies to Home Economics, the psychology of learning, evaluation, curriculum planning and effective teaching are reviewed in terms of the best present educational practice. Special problems of class members are solved where possible.

**HE 452 Curriculum Construction 2 cr.**

The theory, principles and practices of curriculum construction are studied and applied to specific situations. The Pennsylvania Resource Material is used as an example and a basis for planning for specific communities.

**HE 453 Materials and Methods in Home Economics Education 2 cr.**

Teachers are given an opportunity to prepare teaching aids that will be useful in each area of Home Economics. Methods and techniques of teaching are studied and tried.

**HE 454 Adult Homemaking Education 2 cr.**

The principles and theory of adult education are studied. The psychology of adults is considered and their needs in the areas of homemaking investigated. Plans for implementing a broad program are formulated and communities sponsoring such a program used as case studies.

**HE 455 Education and Vocational Guidance 3 cr.**

The Manpower Act of 1962 and its implications for home related employment are studied. Needs in Pennsylvania communities are investigated. Possible programs are formulated and experiences needed for their implementation sought.

## MATHEMATICS DEPARTMENT

JAMES E. McKINLEY, Chairman of Department

IDA Z. ARMS

EDWIN W. BAILEY

BLAINE C. CROOKS

GEORGE W. GAVALA

RAYMOND D. GIBSON

MARIAN J. KIPP

JOHN S. MOWBREY, JR.

CARL P. OAKES

GLENN W. OLSON

WILLIAM R. SMITH

MELVIN R. WOODARD

### REQUIRED COURSES FOR A MATHEMATICS CONCENTRATION FOR BOTH EDUCATION AND LIBERAL ARTS CURRICULA

#Math 152	Algebra and Trigonometry	5 sem. hrs.
Math 157	Analytic Geometry and Calculus I	4 sem. hrs.
Math 257	Analytic Geometry and Calculus II	4 sem. hrs.
Math 357	Analytic Geometry and Calculus III	4 sem. hrs.
Math 355	Foundations of Geometry I	3 sem. hrs.
Math 375	Introduction to Modern Mathematics	3 sem. hrs.
*Ed 451	Teaching of Mathematics in Secondary Schools	3 sem. hrs.
Math 452	Seminar in Mathematics	1 sem. hr.
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		27 sem. hrs.

# Not required of students with advanced standing.

\* Not required of students in the Liberal Arts Curriculum.

### COURSE DESCRIPTIONS

Math 101 Foundations of Mathematics 4 sem. hrs.

This course is designed to familiarize students with some of the ideas underlying the development of mathematics and an elementary treatment of problem solving and decision making. The primary objective is not to develop "computational" skills but to study mathematics in its role as both an art and a science.

Topics to be studied include: numeration and number systems with special emphasis on recognizing patterns and structure; intuitive set theory and applications, including probability and statistics; and informal logic in its relation to mathematics, both in algebra and geometry. Prerequisites: High School Algebra and Geometry.

Math 152 Algebra and Trigonometry 5 sem. hrs.

Number systems and equations; plane trigonometry; inequalities; functions and graphs; complex numbers; theory of equations; mathematical induction; the binomial theorem. Prerequisite: Satisfactory score on the Placement Examination.

**Math 157 Analytic Geometry and Calculus I** 4 sem. hrs.

Analytic Geometry of the straight line; circle; and the conics; polynomials and their graphs; elements of differential and integral calculus with applications involving polynomials. Prerequisites: Algebra and Trigonometry or permission of the department.

**Math 253 Theory of Equations** 3 sem. hrs.

Among the topics considered are algebraic equations; determination of roots; algebraic solutions of cubic and quartic equations; systems of equations; determinants; matrices, and symmetric functions. Prerequisites: Analytic Geometry and Calculus I.

**Math 257 Analytic Geometry and Calculus II** 4 sem. hrs.

Differential and integral calculus of algebraic and transcendental functions with applications to the physical sciences. Prerequisites: Analytic Geometry and Calculus I.

**Math 341 Theory of Numbers** 3 sem. hrs.

A study of the foundation of number theory with special attention being given to such topics as repeating decimals and congruences; number theoretic functions; diophantine equations; continued fractions. Prerequisite: Consent of Instructor.

**Math 353 History of Mathematics** 3 cr.

The course will stress the effect mathematics has had on the development of our culture especially in the fields of the sciences, art, music and religion. Emphasis is placed on the evolution of the numeration system, the notation of sets, and with its wide range of applications in nature and scientific research. Biographies of outstanding mathematicians, past and present, will be considered. Prerequisite: Math 257.

**Math 355 Foundations of Geometry I** 3 cr.

The elements of plane and solid geometry up to and including congruence from the metric point of view, followed by a discussion of the synthetic point of view; historical development; parallelism; similarity; area; volume; substantial experience with at least one other geometry (preferably hyperbolic non-Euclidean geometry). Prerequisites: Analytic Geometry and Calculus II.

**Math 357 Analytic Geometry and Calculus III** 3 cr.

Prerequisite: Analytic Geometry and Calculus II. This course will extend the background of the student in elementary calculus and will consider infinite series, Taylor's and Maclaurin's expansions, partial differentiation, multiple integrals, and an introduction to ordinary differential equations.

**Math 361 Ordinary Differential Equations** 3 cr.

The topics considered will include linear differential equations of first and higher order, those of first order but not of first degree, and applications to geometry and the sciences. Prerequisite: Math 257.

**Math 362 Probability and Statistics** 3 cr.

This course is intended as a beginning course in statistics with emphasis on applications rather than on theoretical developments of principles and formulas. Calculus is not a prerequisite. The areas of study in this course are: frequency distributions, measures of central tendency and variation, elementary probability, sampling, estimation, testing of hypotheses, linear correlation and regression, and multiple and partial correlation.

**Math 364 Introduction to Computer Mathematics I**  
(Non-Majors) 3 cr.**Math 365 Introduction to Computer Mathematics II** 3 cr.**Math 366 Fortran** 3 cr.**Math 371 Linear Algebra I** 3 cr.

Topics considered in this course include: Vectors, linear, dependence, the concept of a basis, orthogonal bases, vector spaces and subspaces; Algebra of matrices, transpose and inverses, symmetric and skew-symmetric matrices; linear transformations, determinants, Gaussian elimination and Cramers rule.

**Math 375 Introduction to Modern Mathematics** 3 cr.

This course is designed to acquaint the prospective teacher with new methods and content in mathematics. A thorough study of the development of the complex number system from a postulational viewpoint, starting with the natural numbers, through the integers, fractions, rationals, irrational, real, and finally the complex numbers, serves as a model of the rigorous methods used in mathematics today. Set theory and its applications in serving to unify topics in high school algebra and geometry are of primary importance. The study of mathematical structures, including that of groups, rings, integral domain, and fields, acquaints the student with the knowledge that there are many algebras and geometries and points out the true nature of a mathematical system. Boolean algebra and arithmetic modular systems serve as examples to illustrate these systems. An attempt is made throughout the course to strengthen, but not replace, the traditional mathematics with the new.

**Math 376 Abstract Algebra** 3 cr.

This course consists of a development of the theory of integral domains, fields, rings, and groups. It is designed to develop the stu-

dent's power to think for himself and to improve his ability to construct formal proofs.

**Math 381 Advanced Calculus**

3 cr.

Includes a rigorous development of concepts of calculus. Topics discussed include absolute value, inequalities, neighborhoods, functions, sequences, limits of functions, continuity and uniform continuity, the Bolzano-Weirstrass and Heine-Borel theorems, differentiation and the Riemann integral. Prerequisite: Math 357.

**Ed 451 Teaching Mathematics in the Secondary Schools**

3 cr.

The major objective of the course is to prepare teachers of mathematics for the modern secondary schools. The principal activities in the class are the preparation and presentation of lessons on concepts from the secondary schools mathematics courses; study of the principles of teaching and learning; observations; study of current mathematics curricula; and learning to use curriculum materials effectively.

**Math 452 Seminar in Mathematics**

1 cr.

During the semester preceding student teaching each person majoring in mathematics is expected to perform an independent study of mathematics beyond the scope of the courses he has taken. The area for investigation will be selected by the student, subject to the approval of the instructor. Upon completion of the study, the student is expected to give an oral presentation of his findings to the other members of the group.

**Math 461 Compiler Systems**

3 cr.

**Math 471 Seminar in Computers**

3 cr.

**El 313 Teaching Mathematics in the Elementary School**

3 cr.

In this course emphasis will be given to the place of arithmetic in the elementary school and to the recent changes in curriculum and method; to techniques for developing concepts and processes; to recent research in the field of arithmetic; and to books and materials helpful to prospective teachers. Observation of master teachers at work will be planned. Prerequisite: Math 101.

## MILITARY SCIENCE AND TACTICS DEPARTMENT

LT. COLONEL ARCHIE T. MADSEN, Chairman of Department

MAJOR JAMES M. SKINNER  
CAPTAIN DON A. WILKINSON  
CAPTAIN WILLIAM K. HUNZEKER  
CAPTAIN JOHN P. BURKE  
MSGT. WILLIAM E. DELONG

MSGT. GEORGE KOHUT  
SFC ARTURO ALAYON  
SFC VERNON ASHBROOK  
SGT FRANK KULKOSKY  
SGT. WILLARD U. MORGAN

Indiana State College, Indiana, Pennsylvania, is authorized a Senior Division, Reserve Officers Training Corps unit. The mission is to provide junior officers who have the qualities and attributes essential to their progressive and continued development as officers of the Army of the United States.

### REQUIREMENTS FOR ENROLLMENT

The general requirements for enrollment in the ROTC are that the student be a citizen of the United States, physically qualified as prescribed by the Department of the Army, accepted by the institution as a regularly enrolled student, not less than 14 years of age, but less than 24 years of age at the time of enrollment. For continuance in the ROTC the student must successfully complete such general survey or screening tests as are given to determine eligibility for admittance to the Advanced Course, and agree in writing upon admission to the advanced course to complete the course of instruction offered, unless released by the Department of the Army. Veterans may receive credit for portions of the ROTC military course for military service completed prior to enrollment in ROTC.

### WHAT ROTC OFFERS

Uniforms, equipment, ROTC textbooks are issued without cost to formally enrolled cadets.

Students having successfully completed the Basic Course, or having at least one year of active service in the Armed Forces, and meeting the Advanced Course admission requirements are paid a subsistence allowance in lieu of rations currently amounting to twenty-seven (27) dollars per month during the time they are taking the Advanced Course.

After the student completes the Advanced Course and receives his baccalaureate degree from the college he is eligible for a commission as a second lieutenant in the United States Army Reserve.

Students who have completed the first year Advanced Course and have displayed outstanding qualities of military leadership, high moral character, and definite aptitude for military service are designated "Distinguished Military Students." Students so honored who maintain the standards until graduation are designated "Distinguished Military Graduates," and are eligible for appointment in the Regular Army.



Policies affecting enrollment and continuance of students in the Senior Division of the Reserve Officers Training Corps are included in the provisions of the Selective Service Act of 1950. This Act provides for military deferment of students (certain basic course students upon request, and all advanced course students) until completion of their academic course under the following conditions:

1. Students enrolled in the ROTC must remain in good standing in both their academic and military courses.
2. They must demonstrate proper and sufficient aptitude and leadership characteristics ultimately to qualify them for appointment as commissioned officers.
3. They must attend a summer training camp, when ordered by competent authority (usually at the end of the Junior year).
4. They are required to sign an agreement to accept a commission in the Army, if and when tendered, and to serve not to exceed two (2) years on active duty as an officer, subject to call by the Secretary of the Army.

### SPECIAL FEES

**ROTC Activity Fee and Clothing Deposit.** The sum of \$7.00 is collected in September from each cadet enrolled in ROTC. Of this amount \$1.00 represents the cadet's initial share of the cost of the annual Military Ball; \$.50 covers the cost of the cadet name tag (normally deducted on initial enrollment only); \$.10 for cadet hand book and the remainder is a deposit against possible loss of items of clothing or equipment loaned to the cadet by the U. S. Government. Refunds are made at the end of the school year, or earlier, as applicable.

### CURRICULUM IN MILITARY SCIENCE AND TACTICS

The Military Science curriculum covers four years and is divided into two courses: The Basic Course and the Advanced Course.

#### THE BASIC COURSE

The first two years of Military Science comprise the Basic Course which furnishes a background in basic military subjects. A minimum of two hours instruction each week is required for the MS 101 and 102 courses and a minimum of three hours for courses 203 and 204.

#### 1st Year

MS 101 Military Science I

2 cr.

Instruction in Organization of the Army and ROTC; Individual Weapons and Marksmanship; and Leadership.

**MS 102 Military Science I** 2 cr.

Instruction in United States Army and National Security; and Leadership.

**2nd Year****MS 203 Military Science II** 2 cr.

Instruction in Map Reading; Basic Tactics and Techniques; and Leadership.

**MS 204 Military Science II** 2 cr.

Instruction in American Military History; and Leadership.

**THE ADVANCED COURSE**

The second two years comprise the Advanced Course, each year of which consists of 105 hours of instruction in Military subjects and 45 hours of instruction in selected academic fields approved by the Professor of Military Science and Tactics. Students who clearly demonstrate during their attendance in the Basic Course the qualities necessary to become a Reserve Officer of the U. S. Army are enrolled in the Advanced Course.

For admission to this course a student must fulfill the following: have completed the Basic Course; be selected by the Professor of Military Science and Tactics and the President of the College; be 26 years of age or under at time of enrollment; meet physical requirements as established by the Department of the Army; execute a contract with the Government to finish the course, attend a six-week summer camp and accept a commission in the United States Army Reserve, if tendered. When contract is signed, completion of the Advanced Course becomes a requirement for graduation unless contract is cancelled by the Department of the Army.

**3rd Year****MS 305 Military Science III** 3 cr.

Instruction in Principles of Leadership; Military Teaching Methods; Quartermaster Tactics and Techniques; and Leadership Laboratory.

**3rd Year****MS 306 Military Science III** 3 cr.

Instruction in Quartermaster Tactics and Techniques; Pre-Camp Orientation; and Leadership Laboratory.

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4th Year

MS 407 Military Science IV 3 cr.

Instruction in Quartermaster Tactics and Techniques; Army Administration; Military Law; and Leadership Laboratory.

MS 408 Military Science IV 3 cr.

Instruction in Service Orientation; Role of the United States in World Affairs; and Leadership Laboratory.

## SUMMER CAMP

The six weeks of summer camp is attended by students upon completion of the first year of the Advanced Course of Military Training. Time at camp is devoted to the practical application and demonstration of principles and theories taught during the school year. While at camp each student will receive lodging, subsistence, uniforms, medical care, reimbursement for travel and pay of the first enlisted grade of the United States Army (currently \$78.00 per month).

## MUSIC DEPARTMENT

HAROLD S. ORENDORFF, Chairman of Department

WILLIAM BECKER  
ROBERT E. BERNAT  
ROBERT W. BURGGRAF  
DONALD J. CALDWELL  
CATHERINE C. CARL  
CHARLES A. DAVIS  
DANIEL DICICCO  
GLADYS DUNKELBERGER  
OLIVE FORNEAR  
WALTER A. GOLZ

ARVILLA HARROLD  
THOMAS J. HUGHES  
H. EUGENE HULBERT  
FEDOR KABALIN  
C. DAVID McNAUGHTON  
RUSSEL C. NELSON  
CLEL T. SILVEY  
BETTY DANDO STEWART  
LAWRENCE C. STITT  
ALLEN R. TRUBITT

Requirements for Admission: Admission to the Music Department at Indiana State College requires the following procedure in addition to general entrance requirements:

1. Submit a letter of recommendation from the high school and/or private music teacher.
2. Demonstrate keyboard facility by means of a prepared selection at the piano.
3. Demonstrate satisfactory sight-reading ability on the piano.
4. Demonstrate vocal control by singing a prepared art song with accompaniment. An accompanist will be furnished by the department.
5. Demonstrate satisfactory sight-reading ability with his voice without accompaniment.
6. Demonstrate musicality by means of a prepared selection on one or more of the standard band or orchestral instruments with accompaniment. An accompanist will be furnished by the department.
7. Demonstrate sight-reading on one of the standard band or orchestral instruments without accompaniment.

## GENERAL EDUCATION

Mus 101 Introduction to Music

3 s.h.

The course "Introduction to Music" presumes no technical background, but does utilize as fully as possible the varied musical experiences of each individual to help him extend his interest as far as possible. One or two field trips are planned each semester to Pittsburgh to attend the Pittsburgh Opera and/or the Pittsburgh Symphony. In addition, various concerts of college organizations, cultural life events, and visiting artist concerts are required to augment the listening experiences of the student.

## MUSIC THEORY

**Mus 111 Sight Singing I**

2 s.h.

Sight Singing I is designed to develop the student's skill at interpreting written music by the use of his own voice, regardless of his major performing medium. Areas of study include: all major and minor scales; treble, alto, tenor, and bass clefs; all diatonic intervals; duple and triple meter with rhythmic dictation drills; phrase-wise thinking; and elementary form analysis. The sol-fa syllables with movable do are used.

**Mus 112 Sight Singing II**

2 s.h.

A continuation of the development of skills in the areas of Sight Singing I, as well as the following additional areas: sensitivity to intonation, part singing, compound meters, written melodic and rhythmic dictation. Prerequisite: Sight Singing I with a mark of C or better.

**Mus 113 Ear Training I**

1 s.h.

Ear Training I involves dictation skills and notation in the following areas: primary harmonies in all inversions, and melodic dictation with implied and actual harmonies.

**Mus 114 Ear Training II**

1 s.h.

A continuation of the development of dictational and notational skills of Ear Training I as well as the following areas: secondary triads, seventh chords, and modulation to related keys. Prerequisite: Ear Training I with a mark of C or better.

**Mus 115 Harmony I**

3 s.h.

Harmony I includes the playing and writing of primary harmonies in all inversions, using the chorale style of harmonization; and the study of phrase and period through the analysis and study of melodies to be harmonized.

**Mus 116 Harmony II**

3 s.h.

The content of Harmony I is broadened to include secondary triads and seventh chords, mastery of the circle of fifths, and modulation to related keys. Harmonization in the piano style is introduced and developed as well as the writing of original melodies. The double period and phrase group serve as units for analysis. Prerequisite: Harmony I with a mark of C or better.

**Mus 215 Harmony III****3 s.h.**

Harmony III includes the playing and writing of chromatic harmonies, modulation to remote keys, writing for male voices, writing for women's voices, the study and analysis of song-forms and simple rondo forms, and harmonic dictation. Prerequisites: Harmony II, Sight Singing II, and Ear Training II, all with a mark of C or better.

**Mus 216 Harmony IV****3 s.h.**

In addition to the further development of many of the areas of study in Harmony III, Harmony IV also includes: harmonization at the keyboard; transposition at the keyboard; further development of chromatic harmony; study of the rondo, sonatina, and sonata-allegro forms; and original writing. Prerequisite: Harmony III with a mark of C or better.

**Mus 315 Harmony V****3 s.h.**

Many of the harmonic idioms of the past half century will be considered, such as: comparative analysis of dissonance; polytonality; polyrhythms; atonalism and the 12 tone system; and microtonalism. Original writing in these styles will be required. Prerequisite: Harmony IV.

**Mus 305 Form and Analysis****2 s.h.**

The major forms of music from the motet to the chorus will constitute this course. Under guidance, the student will analyze major works in as many forms as possible, both through listening and reading of the work. Prerequisite: Harmony IV.

**Mus 306 Counterpoint I****2 s.h.**

After an intensive study and analysis of the style of the 16th Century contrapuntal writing, the student will do original writing using the techniques and devices of the period. As time permits, the same approach will be made to explore the style of the 17th and 18th Century composers. Prerequisite: Harmony IV.

**Mus 307 Counterpoint II****2 s.h.**

A continuation of the study, analysis, and restricted writing of the 17th and 18th Century composers. Consideration will be given to the free contrapuntal techniques used by later composers. Prerequisite: Counterpoint I.

**Mus 308 Fugue and Canon****2 s.h.**

The application of contrapuntal techniques within these two specific forms through analysis, assigned exercises, and creative writing. Prerequisite: Counterpoint I.

**Mus 309 Orchestration I**

2 s.h.

All the instruments of the orchestra are studied from the viewpoint of their contribution to the total sound of the ensemble. Ranges and timbres are considered as well as actual arranging of selected music for each section, full orchestra, band, and other instrumental organizations. Whenever possible, the arrangements are performed in class or by one of the organizations of the college. Prerequisite: Harmony IV.

**Mus 310 Orchestration II**

2 s.h.

A continuation of Orchestration I with more emphasis placed on larger projects and the programming of outstanding works in college concerts. Prerequisite: Orchestration I.

**Mus 411 Composition I**

2 s.h.

Instruction in Composition I will of necessity be highly individualized due to the uniqueness of the creative process. Compositional devices will be studied through the analysis of works by major composers. Students will do original works in the smaller forms of music. Prerequisite: Harmony IV.

**Mus 412 Composition II**

2 s.h.

A continuation of Composition I with the emphasis placed more on the larger forms of music. Outstanding works will be programmed by college organizations. Prerequisite: Composition I.

## MUSIC LITERATURE AND HISTORY

**Mus 301 History of Music I**

3 s.h.

A study of the development of music from the ancient Greek and Roman cultures through the Middle Renaissance and the 16th Century. Although the approach is an historical one, considerable analytical listening is required.

**Mus 302 History of Music II**

3 s.h.

Beginning with the Late Renaissance, History of Music II will trace the development of music through the late 18th century, including the work of Haydn and Mozart. Considerable analytic listening is required, both from records and campus performances.

**Mus 303 History of Music III**

3 s.h.

Starting with the 19th Century and Beethoven, History of Music III is the historical study of the development of music through to the present. Analytic listening required through all available sources.

**Mus 320 Music of the Ancient World 3 s.h.**

A concentrated study of music from the early Greeks up to the Middle Ages, including considerable emphasis on plainsong or Liturgical music of the early church. Prerequisites: History of Music I, II, and III.

**Mus 321 Music of the Middle Ages 3 s.h.**

Starting with the Jongleurs, Troubadors, and Trouveres of the Early Middle Ages, this course deals with the literature of music through English and Burgundian Schools at the close of the Middle Ages. Prerequisites: History of Music I, II, and III.

**Mus 322 Renaissance Music 3 s.h.**

Beginning with Ockeghem and ending with Palestrina and his contemporaries, the music literature of this age is carefully and thoroughly studied. Prerequisites: History of Music I, II, and III.

**Mus 323 The Baroque Era 3 s.h.**

The Baroque Era extends from Monteverdi through Bach and Handel, and considers both vocal and instrumental forms, styles, and practices of the era. Prerequisites: History of Music I, II, and III.

**Mus 324 Eighteenth Century Music 3 s.h.**

Although Mozart and Haydn comprise the greater portion of 18th Century music, the Rococo Period involves D. Scarlatti and C. P. E. Bach as well. The mature development of the sonata and symphony comprise a considerable portion of this study. Prerequisites: History of Music I, II, and III.

**Mus 325 The Early Romantic Period 3 s.h.**

Beethoven, Schubert, Rossini, Weber, Mendelssohn, Berlioz, Schumann, and Chopin are the major composers to be studied in the Early Romantic Period. Prerequisites: History of Music I, II, and III.

**Mus 326 The Late Romantic Period 3 s.h.**

Wagner, Verdi, Glinka, Bruckner, Meyerbeer, Liszt, Gounod, Brahms, Offenbach, Smetana, J. Strauss, Grieg, Bizet, Moussorgsky, Saint-Saëns, Tchaikowsky, Massenet, Franck, Borodin, Rimski-Korsakoff, Wolf, R. Strauss, Mahler, Fauré, Puccini, Dvorak, MacDowell, and Elgar are the major composers of this study. Prerequisites: History of Music I, II, and III.

**Mus 420 Contemporary Music 3 s.h.**

Beginning with Debussy, Ravel and the other impressionists, touching on Schoenberg, Stravinski, Webern, Honneger, Milhaud,



et al. Contemporary Music ends with today and tomorrow. Various trends, styles, techniques are noted; judgements are attempted on the more experimental forms; and limited predictions of trends are ventured. Prerequisites: History of Music I, II, and III.

**Mus 421 American Music**

3 s.h.

American Music is a study of the History and Literature of Music in America from 1600 to the present day. Early American musical heritages are traced from pre-revolutionary America to our day. Prerequisites: History of Music I, II, and III.

## CONDUCTING

**Mus 311 Fundamentals of Conducting**

2 s.h.

Emphasis will be placed on the fundamental physical skills of the conducting process. Various beat patterns will be mastered and elementary score reading and interpretation will be considered.

**Mus 312 Choral Conducting**

2 s.h.

Choral Conducting will provide the opportunity for the student to apply his basic conducting techniques to the choral area. Each student will conduct the rest of the class in many of the standard choral works of the literature. Also a survey of suitable literature, organizational problems, voice testing, rehearsal techniques, program building, interpretation, and diction will be included. Prerequisite: Fundamentals of Conducting with a mark of C or better.

**Mus 313 Instrumental Conducting**

2 s.h.

Instrumental Conducting will provide the student with the opportunity to apply his basic conducting skills to the various instrumental ensembles. Each student will conduct the rest of the class as well as the available instrumental ensembles in the department. Also a survey of suitable literature, organizational problems, audition procedures, rehearsal techniques, program building, and interpretation will be considered. Prerequisite: Fundamentals of Conducting with a mark of C or better.

**Mus 401 Choral Score Reading**

2 s.h.

Choral Score Reading is designed for the Vocal Curriculum student who wishes to further develop his skills at interpreting choral scores. Some of the units are: reading 3, 4, 5, and 6 line scores; problems of editing music of various periods; further development of skill with various clefs; developing a sense of tempi; and practice in score reduction at the keyboard. Prerequisites: Harmony IV, and Choral Conducting.

**Mus 402 Instrumental Score Reading****2 s.h.**

Instrumental Score Reading serves a similar purpose for the Instrumental Major. Some of the units are: developing skill in reading 12 lines to full orchestral or band scores of 32 lines; editing and bowing problems of various periods; developing skill with clefs and transpositions; developing a sense of tempi; and reducing full scores at the keyboard. Prerequisites: Harmony IV, and Instrumental Conducting.

**MUSIC EDUCATION****El 211 Music for the Elementary Grades****2 s.h.**

(See the Elementary section for a course description.)

**El 212 Teaching Music in the Elementary Grades****3 s.h.**

(See the Elementary section for a course description.)

**MEd 201 Eurythmics I****1 s.h.**

Eurythmics I develops musical perception through physical response; stimulates creative imagination through group and individual interpretations; and promotes bodily coordination, poise, and precision.

**MEd 202 Eurythmics II****1 s.h.**

Eurythmics II continues the skill development begun in Eurythmics I and further provides each student with the opportunity to direct others; to master and to teach a repertory of folk dances; and to organize the work to fit the needs and capacities of elementary pupils. Prerequisite: Eurythmics I.

**MEd 301 Elementary Methods****2 s.h.**

Included in Elementary Methods are the following topics: analytical study of texts, recordings, equipment, instruments, and other material suitable to musical development of elementary pupils; proper treatment of the child voice; selection, use, and teaching of rote songs; rhythmic activities and development; music reading; part singing; planning and organization; guided observations; and evaluation techniques.

**MEd 302 Junior High School Methods****2 s.h.**

The following topics are considered: characteristics of the early adolescent pupil; the general music class; choral organizations; the changing voice; techniques of instruction; evaluation of materials; evaluation techniques; and guided observations.

**MEd 303 Senior High School Methods**

2 s.h.

The organization and development of the large ensemble is considered as well as high school courses in theory and history of music. Scheduling, administration, and curricular problems of the high school music program are treated. Evaluative techniques, unique to the music program, will be considered and guided observations are required.

**MEd 304 Instrumental Methods**

2 s.h.

A treatment of the necessary understandings, techniques, equipment, and materials necessary to develop an effective instrumental music program in the public schools. Demonstrations and laboratory work are designed to give the student the competencies needed to meet successfully the various teaching situations in instrumental music from the grades through the high school.

**MEd 405 Piano Pedagogy**

2 s.h.

A survey of all current and significant past developments in the teaching of piano both privately and in small and large classes. The various piano methods are analyzed, compared, criticized, and adapted to each individual's use. Prerequisites: Junior Standing in Piano, and a piano major or minor.

**MEd 406 Voice Pedagogy**

2 s.h.

A survey of all current and significant past developments in the teaching of voice both privately and in small and large classes. The various vocal methods are analyzed, compared, criticized, and adapted to each individual's use. Prerequisites: a voice major or minor, and permission of the instructor.

**MEd 407 Master Class in Organ**

2 s.h.

From time to time the organ instructor will accept from four to eight organ majors for this course. Every student will observe every other student's instruction and demonstrations of various techniques of teaching organ will be given. Prerequisites: for organ majors only with the organ instructor's permission.

**MEd 408 Marching Band Techniques**

2 s.h.

The following topics are considered: building a band show; alignment of ranks and files; development of a standard pace of 6 to 5 and 8 to 5; selection of music; instrumentation; techniques of developing morale; and fundamentals of uniform design.

## Ed 421 Student Teaching

12 s.h.

The music major will begin his practice teaching with observations and various simple teaching assignments, gradually assuming greater teaching responsibilities on the elementary, junior and senior high school levels in instrumental and/or vocal music as his particular curriculum requires. A college staff member coordinates the work of the student teacher and his school supervisor.

## Ed 422 Professional Practicum (Including School Law)

2 s.h.

Significant problems of an advanced nature, and closely related to student teaching, are introduced in order to insure further professional growth. Observing of other teaching situations, reading of books and professional journals, along with reports and discussions at conferences, will aid in this growth.

## APPLIED MUSIC

## Class Instruction

The following courses are designed to acquaint the student with basic skills in each particular area. The classes are conducted in a similar manner to those in the public schools but for different purpose. It is assumed that the voice major should have a working knowledge of each of the three major instrumental groups; the instrumental major should have a working knowledge of the voice and vocal production. The class instruction in Applied Music fills this need.

Vce 101	Class Voice I	1 s.h.
Vce 102	Class Voice II	1 s.h.
Pno 101	Class Piano I	1 s.h.
Pno 102	Class Piano II	1 s.h.
Vln 101	Class Violin	1 s.h.
Cnt 101	Class Cornet	1 s.h.
Trb 101	Class Trombone	1 s.h.
Perc 101	Class Percussion	1 s.h.
Str 101	Class Strings	1 s.h.
WW 101	Class Woodwinds	1 s.h.
Br 101	Class Brass	1 s.h.
Vce 301	Italian Diction	2 s.h.
Vce 302	Spanish Diction	2 s.h.
Vce 303	French Diction	2 s.h.
Vce 304	German Diction	2 s.h.

### Private Instruction

One semester hour credit for each number. Each semester hour of credit requires one half-hour lesson and five hours practice per week for one semester. The instructor will determine which series applies.

111 - 130 Series, for beginners or near beginners

211 - 230 Series, for intermediate students

311 - 330 Series, for advanced students

411 - 430 Series, for artist students

available in the following performance areas:

Piano (Pno)	Cello (Cel)	Saxophone (Sax)
Organ (Ogn)	Bass Viol (BsV)	Trumpet (Trpt)
Voice (Vce)	Clarinet (Clar)	French Horn (FrH)
Harp (Hrp)	Flute (Fl)	Trombone (Trb)
Violin (Vln)	Oboe (Ob)	Baritone Horn (BaH)
Viola (Vla)	Bassoon (Bssn)	Percussion (Perc)

### Ensembles

No credit; S or U mark; participation required in the various curricula as follows:

Students in the vocal music education curriculum, whether their major is piano or voice, will participate in one of the large vocal ensembles every semester. Freshmen are not eligible for the College Choir.

Students in the instrumental music education curriculum will participate in one of the large instrumental ensembles every semester. They will further be required to participate in one vocal ensemble each semester of their freshman year.

Students in the general music education curriculum will be required to participate in one vocal and one instrumental ensemble each semester.

If one of the music ensembles is in need of a particular player because of the uniqueness of the instrument or voice, the student may be required to participate even though he has fulfilled the above requirements.

Mus 121	Chamber Ensembles
Mus 122	Brass Choir
Mus 123	Clarinet Choir
Mus 124	Marching Band
Mus 125	Indiana Band
Mus 126	Indiana Wind Ensemble
Mus 127	Indiana Glee Club
Mus 128	Women's Chorus
Mus 129	Opera Workshop
Mus 130	String Orchestra
Mus 131	Indiana Symphony Orchestra
Mus 201	College Choir

## SCIENCE DEPARTMENT

DWIGHT E. SOLLENBERGER, Chairman of Department

WILLIS H. BELL  
RALPH R. BOOTH  
CARL W. BORDAS  
EDWARD N. BROWN  
RAYMOND CASTILLO  
WALTER W. GALLATI  
DONALD GROFF  
DONALD E. HOFFMASTER  
FRANCIS W. LIEGEY  
RONALD L. MARKS  
ROBERT MERRITT  
\*MELVIN MITCHELL

ROBERT N. MOORE  
GEORGE F. OBER  
CHARLES D. REESE  
DANIEL G. REIBER  
ARTHUR G. SHIELDS  
MARTIN L. STAPLETON  
RICHARD M. STRAWCUTTER  
PAUL M. WADDELL  
RICHARD F. WAECHTER  
ROBERT L. WOODARD  
CYRIL J. ZENISEK  
PATSY A. ZITELLI

\*Punxsutawney Center

## GENERAL EDUCATION COURSES

Sci 103 General Biology I 4 cr.

This course deals with the principles of biology. Topics include cellular structure and physiology, growth and repair, reproduction and development, control sources of food energy, inheritance, and man's interrelationship with his biological environment. The classification of plants and animals is reviewed briefly. Three hours lecture and two hours laboratory.

Sci 104 General Biology II 4 cr.

A continuation of General Biology I. Three hours lecture and two hours laboratory.

Sci 105 Physical Science I 4 cr.

A study of the physical world, focusing on the fundamental concepts of matter and energy. Emphasis is placed on what science is, how scientific knowledge is acquired, and the emergence of the more fundamental physical laws. Topics include those often associated with astronomy, chemistry, geology and physics. Three hours lecture and two hours laboratory.

Sci 106 Physical Science II 4 cr.

A continuation of Physical Science I. Three hours lecture and two hours laboratory.

## BIOLOGICAL SCIENCE COURSES

Biol 111 Botany I 4 cr.

Botany I is primarily a study of the flowering plants. Topics include the anatomy and life processes of plant cells, leaves, stem, roots,

flowers, seeds, and fruits. The economic importance of plants used by man and the recognition and classification of the seed plants in the immediate environment of the college are included. Three hours lecture and three hours laboratory per week.

### **Biol 112 Botany II**

4 cr.

Botany II is concerned primarily with the non-flowering plants. It considers both the anatomy and life processes of selected algae, bacteria, fungi, mosses, ferns, and their allies. The economic importance and health implications of certain of these groups are emphasized. The recognition and classification of the non-flowering plants of the immediate surroundings are stressed. Prerequisite: Botany I. Three hours lecture and three hours laboratory per week.

### **Biol 121 Zoology I**

4 cr.

This is a study of the life history, habits, origin, development, physiology and anatomy of the main phyla of invertebrates. A phylogenetic sequence is followed to show interrelationships among the phyla. The student becomes acquainted with the many invertebrate species found locally. Three hours lecture and three hours laboratory per week.

### **Biol 122 Zoology II**

4 cr.

This course is a study of the chordata in general, and more particularly the classes of vertebrates. Topics studied include the anatomy, physiology, origin, development, and life history of representative members of each class. Special attention is given to the vertebrates found in the vicinity of the college. Prerequisite: Zoology I. Three hours lecture and three hours laboratory per week.

### **Biol 271 Evolution**

2 cr.

This course deals with the principles of organic evolution. Various lines of evidence for evolution are studied as well as the operational mechanisms involved which have resulted in present-day organisms. Consideration is given to the origin and phylogenetic relationships of biologic groups. The historical development of evolutionary thought is also considered. Two hours lecture per week.

### **Biol 263 Genetics**

3 cr.

The purpose of this course is to give the student an understanding of the laws of inheritance as they operate in plants, animals, and humans. Cell structure, mendelian inheritance, eugenics, linkage, probability, crossing over, and random assortment are considered. Prerequisite: 6 hours Biology. Two hours lecture and three hours laboratory per week.

**Biol 251 Field Botany****3 cr.**

This is a course in the taxonomy of the vascular plants of the region. It includes the ferns, fern allies, shrubs, trees and herbaceous plants. The use of the standard manuals for the identification of plant materials is stressed. Students are required to make collections for their future use in teaching situations. Two hours lecture and three hours laboratory per week.

**Biol 351 Plant Physiology****3 cr.**

This course studies the physiological processes occurring in plants. The phenomena of inhibition, osmosis, digestion, photosynthesis, respiration, transpiration and mineral nutrition are considered in relation to the growth and development of the plant. Prerequisites: Botany I and II. Two hours lecture and three hours laboratory per week.

**Biol 252 Field Zoology****3 cr.**

Field Zoology is a course in the study of animals in the field; the collection of such forms, and the preparation and utilization of them for class instruction. Students are required to make collections for their future use in teaching situations. Two hours lecture and three hours laboratory per week. Field trips are required.

**Biol 352 Animal Physiology****3 cr.**

The purpose of this course is to give the student a general background of how animals carry on their bodily processes and a more detailed knowledge of human physiology. Related anatomy is taught as needed. Prerequisites: Zoology I and II. Two hours lecture and three hours laboratory work per week.

**Biol 361 Microbiology****3 cr.**

This course is a study of microscopic forms of life, both plant and animal, which are commonly encountered in biological work. Some emphasis is placed on the study of disease-producing species of man and his domesticated animals. Methods of culturing forms used in high school teaching are studied. Prerequisites: Botany I and II, Zoology I and II. Two hours lecture and three hours laboratory per week.

**Biol 261 Ornithology****3 cr.**

Ornithology is a study of the birds of the region supplemented by a review of the major orders of birds of the western hemisphere. Indoor studies of skins are made during the early part of the course, while the latter part of the course is largely field work. Early morning field trips are required. Two hours lecture and three hours laboratory per week.



**Biol 262 Entomology****3 cr.**

This is an introduction to the orders of insects, considering their characteristics, habits, and economic relations, together with the collecting and identifying of representative forms from western Pennsylvania. Two hours lecture and three hours laboratory per week.

**Biol 281 Parasitology****3 cr.**

An introductory course which covers the parasitic protozoa, flatworms, and roundworms. Major emphasis is placed upon species infesting man and includes their structure, physiology, ecology, life cycles, pathogenicity and treatment. Laboratory work includes some dissection of vertebrate hosts and fixing, staining and mounting of any parasites recovered. Arthropods involved in parasite transmission are also included. Prerequisites: Zoology I and II.

**Biol 272 Conservation of Plant and Animal Resources****3 cr.**

In this course special attention is devoted to a study of accepted practices in soil, water, forest, and game conservation. Numerous local and state conservation specialists are called in to assist in the discussion of the specialized fields of conservation. Field work is an essential part of the course. Prerequisite: Biological Science or equivalent. Two hours lecture and three hours laboratory per week.

**Biol 331 Embryology****3 cr.**

A course in the development of vertebrates as exemplified in the frog, chick, and pig. Major emphasis is placed on the chick. The sequence of maturation, fertilization, cleavage, gastrulation and origin of organs is traced. Prerequisites: Zoology I-II.

**Biol 332 Comparative Anatomy****3 cr.**

This course provides the student with a comparative study of the shark, Necturus and cat. Each system is studied in all three forms concurrently providing a true comparison. Additional vertebrate forms are included in the lecture material. Prerequisite: Zoology II. Embryology is desirable. Two hours lecture and three hours laboratory.

**Biol 341 General Physiology****3 cr.**

This course deals first with an exposition of the basic concepts as they apply to the structure of cells and their activities. This is followed by a consideration of the manipulation of energy — of chemical concentration, of electrical potential, of mechanical energy, and of radiant energy — in the cell and organism. Finally, the problems associated with growth and reproduction and the factors involved in the integration of the organism are considered. Two hours lecture and three hours laboratory.

**Biol 362 Ecology****3 cr.**

This is a study of the interrelations and adaptations of plants, and animals and includes consideration of physical as well as biotic environmental factors. Field trips are taken to study various types of ecologic situations. Two hours lecture and three hours laboratory per week.

**Biol 371 Vertebrate Anatomy****3 cr.**

A study of the anatomical organization of the vertebrate animal. The cat is used as the subject for a detailed laboratory dissection. Prerequisites: Zoology I and II. Two hours lecture and three hours laboratory per week.

**Biol 472 Radiation Biology****3 cr.**

Basic aspects of nuclear physics, the phenomena of radioactive isotopes and the biological effects of such isotopes. Concurrent laboratory work utilizing instruments for detection and measurement of radioactive nuclids used in biological experimentation. Two hours lecture, three hours laboratory per week. Prerequisites: Two years of biology, Physics I-II, Chemistry I-II. Additional chemistry through organic and biological chemistry strongly recommended.

**Biol 498 Problems in Biology****1 - 3 cr.**

A course in which the student may independently investigate any field of biology in which he is interested. This work is supervised by a faculty member but does not involve regular class or laboratory hours. The student should expect to spend three hours per week for each credit earned.

**Biol 499 Research Biology****3 cr.**

A course designed to acquaint the undergraduate student with the techniques of modern research by actively engaging in a program of biological experimentation and/or research. Students will work in close harmony with the faculty member (or members) engaged in an active research project. There are no formal lectures or laboratories and a broad biological background is required. Enrollment is by permission only.

## CHEMISTRY COURSES

**Chem 111-112 General Chemistry I and II****8 cr.**

General Chemistry I includes the study of the nature of matter, atomic structure, periodic law, chemical bond, stoichiometry, gases, liquids, solids, and solutions. General Chemistry II includes chemical kinetics, chemical equilibrium, electrical energy and chemical change, oxidation and reduction, descriptive chemistry, and organic chemistry. Three hours lecture and three hours laboratory per week.

**Chem 211 Qualitative Analysis**

4 cr.

A study of the chemical properties of certain elements and various ionic equilibria involved in their reactions. The student achieves understanding of these principles through solution of selected problems and carefully arranged experimental work, including the identification of unknown ions. Many useful skills and techniques are acquired during the course of the laboratory work. Two hours lecture and six hours laboratory per week. Prerequisites: General Chemistry I and II.

**Chem 212 Quantitative Analysis**

4 cr.

A study of the chemical properties of certain elements and various ionic equilibria involved in their reactions. The student achieves understanding of these principles through solution of selected problems and carefully arranged experimental work, including the identification of unknown ions. Many useful skills and techniques are acquired during the course of the laboratory work. Two hours lecture and six hours laboratory per week. Prerequisites: General Chemistry I and II.

**Chem. 251 Industrial Chemistry**

3 cr.

This course is a study of the applications of chemistry and science to the industries of Western Pennsylvania for the science teacher. The course consists of lectures, laboratory work, and field trips to representative industries. Two hours lecture and three hours laboratory per week. Prerequisites: General Chemistry I and II.

**Chem 311-312 Organic Chemistry I and II**

8 cr.

A study of the compounds of carbon with special emphasis being placed on the structure and reactions of the more important classes of carbon compounds. The laboratory work involves the preparation and purification of representative compounds. Three hours lecture and three hours laboratory per week. Prerequisites: General Chemistry I and II.

**Chem 321 Organic Qualitative Analysis**

2 cr.

A course designed to give the student experience in the systematic identification of various classes of organic compounds. One hour lecture and four hours laboratory per week. Prerequisites: Organic Chemistry I and II (Organic Chemistry II may be taken concurrently).

**Chem 351 Biological Chemistry**

3 cr.

A study of the chemistry of carbohydrates, lipids, proteins, minerals, and vitamins as well as the biological functions of each. Three hours lecture per week. Prerequisite: Organic Chemistry I.

**Chem 411 Physical Chemistry****3 cr.\*\***

Elementary thermodynamics, thermochemistry, gases, solutions, and other topics as time permits. Two hours lecture and three hours laboratory per week. Prerequisites: Quantitative Analysis, Calculus I, and Physics I and II.

\*\*Note: Starting as soon as possible, and no later than September, 1965, this course will become a two semester course of 8 credits with an increase in lecture time from two to three hours per week.

**Chem 451 Colloidal Chemistry****3 cr.**

This course consists of discussion and laboratory work dealing with the theory of colloidal behavior. Stress will be placed upon proteins and other materials encountered in the colloidal state which are important in nature or industry. Two hours lecture and three hours laboratory per week. Prerequisites: General Chemistry I and II and Organic Chemistry I.

**Chem 452 Advanced Inorganic Chemistry****3 cr.**

This course is designed to give the student an understanding of the advanced theory of atomic structure, chemical bonding, acids and bases, coordination compounds, and selected topics. Three hours lecture per week. Prerequisites: Qualitative Analysis and Organic Chemistry I.

**Chem 498 Problems in Chemistry****1 to 9 cr.**

This course includes laboratory work, library reading, and conferences with a staff member. The purpose of the course is to give the student experience in the investigation of selected problems in chemistry. The credit is to be arranged.

**Chem 151-152 Organic and Biochemistry I-II****6 cr.**

This course is planned to include those topics from the fields of organic chemistry and biochemistry that are most important for the student of home economics. The structures, properties, and preparation of the various classes of organic compounds are surveyed. This information then serves as a basis for the study of various materials encountered by a professional home economist, whether teaching or employed by private industry. Three hours of lecture and two hours of laboratory per week.

**EARTH SCIENCE COURSES****E.Sci 211 Astronomy I****3 cr.**

Fundamentals of astronomy with emphasis on the telescope, observational methods, an examination of the sun, moon, planets, aster-

oids, comets, and meteors, the mechanics and origin of the solar system, and the spatial relationship of the solar system to the other members of the universe. Scheduled laboratory periods and night observations are part of the course. Two hours lecture and one laboratory period or night observation per week.

### **E.Sci 212 Astronomy II**

3 cr.

Fundamentals of astronomy with emphasis on the sun, stars, galaxies, the sidereal universe, and the use of spectroscopy for gathering astronomical data. Scheduled laboratory periods and night observations are part of the course. Two hours lecture and one laboratory period or night observation per week.

### **E.Sci 331 Navigation**

3 cr.

A thorough grounding in the meanings of terms used in navigation, in the purposes and use of navigational instruments and publications and in the theory and general methods of piloting, dead reckoning and electronic and celestial navigation. Emphasis is placed upon chart work and the solution of practical navigational problems. Two hours lecture and two hours laboratory.

### **E.Sci 217 Meteorology**

3 cr.

A basic study of the atmosphere and physical processes that produce commonly observed weather phenomena, including discussion of radiation, temperature, humidity, evaporation, condensation and precipitation, clouds, pressure systems and winds, air masses and fronts, cyclones, anti-cyclones, hurricanes, tornadoes, and thunderstorms. In the laboratory, emphasis is on common and useful meteorological instruments, observations, weather reporting, and the weather map. Two lectures and one laboratory period per week.

### **E.Sci 221 Physical Geology**

3 cr.

A basic course, with no college prerequisites, designed to meet the needs of science and non-science majors. It provides a survey of the physical forces molding, modifying and destroying earth structures. Laboratory work includes map study, the identification of rocks and minerals, and field trips. Two hours of lecture and one three hour laboratory per week.

### **E.Sci 222 Historical Geology**

3 cr.

A basic course providing a history of our planet from the fiery beginnings to the present. Special consideration is given to rock stratigraphic sequences, invertebrate fossil distribution and geologic map interpretation. Laboratory work includes field studies. Two hours of lecture and one three hour laboratory per week. Prerequisite: Physical Geology or permission of instructor.

**E.Sci 321 Palcontology****3 cr.**

This course covers the morphology, classification and evolution of the common fossils of the area. Indiana State College is fortunate in being located in an area in which a wide spectrum of representative fossils ranging from Cambrian to Permian time may be found within easy-driving distance of the campus. Major emphasis is placed on the invertebrate fossils. Field work is an essential part of the course. Two hours lecture and three hours laboratory.

**PHYSICS COURSES****Phys 111-112 Physics I and II****8 cr.**

A two-semester course constituting the usual first year's work in general college physics. In Physics I mechanics, heat and sound are studied; in Physics II electricity and magnetism, light, and atomic and nuclear physics. A working knowledge of elementary algebra is essential. Three hours lecture and three hours laboratory per week.

**Phys 211-212 Electricity and Magnetism I and II****7 cr.**

A course in general electricity and magnetism. The electric and magnetic fields of D.C. and A.C. circuits, capacitance, inductance, electromotive force, oscillating circuits, electrical instruments are among the topics developed. First semester: 3 credits, three hours lecture per week. Second semester: 4 credits, three hours lecture per week, three hours laboratory per week. Prerequisites: Physics I and II, Analytical Geometry and Calculus II.

**Phys 311 Mechanics I****3 cr.**

In this course among the topics developed are kinematics, statistics and dynamics of a particle, oscillators, statics and dynamics of extended bodies, planetary motion; three hours lecture per week. Prerequisites: Physics I and II, Analytical Geometry and Calculus II.

**Phys 312 Mechanics II****3 cr.**

In this course among the topics developed are vibrating strings and membranes, wave motion, the Hamiltonian, LaGrange's equations, mechanics of fluids. Three hours lecture per week. Prerequisites: Physics I and II, Analytical Geometry and Calculus II.

**Phys 361 Electronics****3 cr.**

This is a course dealing with the electron, including the charge, emission, and velocity of the electron. The fundamentals of vacuum tubes and their circuits and the use of tubes in communications and industry are studied, three hours lecture per week. Prerequisites: Physics I and II, Analytical Geometry.

**Phys 371 Optics**

3 cr.

This course deals with such topics as reflection and refraction at surfaces, optical instruments, polarization, interference and diffraction of light. Two hours lecture and three hours laboratory per week. Prerequisites: Physics I and II, Analytical Geometry and Calculus I.

**Phys 382 Heat and Thermodynamics**

4 cr.

Temperature and expansion, heat transfer, properties of gases and thermodynamics are some of the topics developed. Three hours lecture and three hours laboratory per week. Prerequisites: Physics I and II, Analytical Geometry and Calculus I.

**Phys 451 Atomic and Nuclear Physics**

3 cr.

This course deals with the electron, atomic spectra, atomic structure, chemical binding, nuclear radiation, the nucleus, elementary particles. Prerequisites: Physics I and II, Analytical Geometry and Calculus II.

**Phys 452 Selected Experiments in Atomic,  
Nuclear and Modern Physics**

2 cr.

Experiments performed will be discharged in gases, charge of an electron,  $e/m$ , detection and measurement of radiation and other experiments depending on time and facilities available. Prerequisites: Physics I and II, Analytical Geometry and Calculus II. Atomic and Nuclear Physics (the latter may be taken concurrently).

**Phys 472 Modern Physics**

3 cr.

Topics developed are electromagnetic radiation, thermionic and photoelectric emission, special relatively, elementary quantum mechanics, statistical mechanics. Three hours lecture per week. Prerequisites: Physics I and II, Analytical Geometry and Calculus I.

### COURSE REQUIRED OF EDUCATION MAJORS IN THE VARIOUS FIELDS OF SCIENCE

**Ed 451 Teaching Science in the Secondary School**

3 cr.

This course is planned to give the prospective science major a thorough background in the problems of teaching science. The objectives of the science program in the secondary school, selection of textbooks, sources of suitable literature, how to secure materials for instruction, the preparation of units, and special techniques are studied. Prerequisites: 12 hours of work in major field. Three hours lecture.

## REQUIRED COURSES FOR STUDENTS IN ELEMENTARY EDUCATION

### Sci 311 Elements of Earth Science 3 cr.

This course is designed to make elementary teachers more aware of the science in their environment. While the biological environment is briefly reviewed, greater stress is placed upon the areas of geology, astronomy and meteorology. Field study and lectures strive to include both scientific principles and practical classroom activities that the teacher may use in the elementary classroom.

### El 312 Teaching of Elementary Science 3 cr.

The fundamental areas of physics and chemistry are covered in this course. Student participation is fundamental to their understanding of the basic principles that can be transferred to the elementary classroom, and to their familiarization with scientific equipment. The latter part of the course is devoted to a survey of the biological environment and continues the work begun in Elementary Science.

## REQUIRED COURSES FOR STUDENTS IN HOME ECONOMICS

### Biol 151 Physiology for Home Economics 3 cr.

This is a study of the various physiological processes occurring in the human body and the functioning of the various tissues and organs. Two hours lecture and two hours laboratory per week.

### Chem 151-152 Organic and Biochemistry 6 cr.

This course is planned to include those topics from the fields of organic chemistry and biochemistry that are most important for the student of home economics. The structures, properties, and preparation of the various classes of organic compounds are surveyed. This information then serves as a basis for the study of various materials encountered by a professional home economist, whether teaching or employed by private industry. Three hours of lecture and two hours of laboratory per week.

### Biol 361 Microbiology (Sanitation) 3 cr.

This course is a study of microscopic forms of life, both plant and animal, which are commonly encountered in biological work. Some emphasis is placed on the study of disease-producing species of man and his domesticated animals. Methods of culturing forms used in high school teaching are studied. Two hours lecture and three hours laboratory per week.



**SOCIAL SCIENCE DEPARTMENT**

RAYMOND L. LEE, Chairman of Department

STEVEN CORD  
CLYDE GELBACH  
RICHARD F. HEIGES  
ROBERT M. HERMANN  
C. M. JOHNSON  
JANE S. MERVINE  
ROBERT L. MORRIS  
ESKO NEWHILL

JAMES M. OLIVER  
DOROTHY PALMER  
WILLIS J. RICHARD  
MERLE J. RIFE  
JOHN R. SAHLI  
WALTER T. SHEA  
BERT A. SMITH  
ALBERT J. WAHL

FLORENCE WALLACE

**GENERAL EDUCATION COURSES**

(Required of all students)

**SS 202 History of Civilization II**

3 cr.

This course deals with man's development from 1600 to the present. Among the topics discussed are: The Commercial Revolution; the Age of Reason; the Age of Revolution — political, economic, and social; the rise of constitutional governments; nationalism and the clash of cultures incident to the growth of empire. Considerable attention is given to democracy, capitalism, communism, fascism, and socialism as the major ideologies of the nineteenth and twentieth centuries. The course concludes with an examination of the various formulas for world order proposed or attempted since 1900.

**SS 302 History of the United States and Pennsylvania II**

3 cr.

A course in the history of the United States and Pennsylvania from 1865 to the present in which the industrialization of America, urbanization, the rise of organized labor, and the development of a distinctly American culture are stressed. Attention is also given to the political, economic, and social reform movements of this period in our history as well as to the increasing role of the United States in world affairs.

**SS 401 American Citizenship**

3 cr.

This course is largely concerned with our Federal and State governments. Emphasis is placed upon the constitutional basis of government, organization and structure of government, division of governmental powers, Federal and State relations, public finance, organization and role of political parties, and the place of the citizen in government. In a study of the functions and services of government, attention is given such problems as foreign policy and world relations, economic and social security, and the promotion of the general welfare.

**SS 410 Introduction to Anthropology** 3 cr.

A general introduction through case studies to the concept of culture, and to the structure and diversity of cultural systems throughout the world.

**Phil 420 Introduction to Philosophy** 3 cr.

A survey of basic issues and fundamental concepts. Designed for the beginning student, this course aims at the development of a critical attitude toward the major "isms" of philosophy. Emphasis is placed upon an understanding of problems in the field, rather than upon individual thinkers.

**ANTHROPOLOGY-SOCIOLOGY ELECTIVES****SS 251 Introduction to Sociology** 3 cr.

Sociology is the science of the structure and functioning of human groups. Taking culture concepts and social institutions as its basic materials, it explores the content, methodology, and interrelationships of those studies seeking to record and explain man's social behavior in the modern world. Problems of social change, and the attendant efforts to direct and control such change, are integral parts of the course.

**SS 331 Contemporary Social Problems** 3 cr.

A course which explores pressing social issues and the solutions offered for their alleviation. Within its scope fall race and minority discrimination, juvenile delinquency, crime, family disintegration, personal maladjustment, population shifts, the role of culture, the nature of social change, and the possibility of social planning. Problems are defined and solutions are explored in the light of historical, political, economic, social, and anthropological data. Prerequisite: Principles of Sociology.

**SS 332 Racial and Cultural Minorities** 3 cr.

A study of national, racial and religious minorities and divergent heritages in our national life. Prerequisite: Principles of Sociology.

**SS 333 Juvenile Delinquency** 3 cr.

Principal topics are the cause of delinquency, its forms, consequences, and the methods that may best be used in its prevention. Prerequisite: Principles of Sociology.

**SS 334 Population Problems** 3 cr.

The focus is upon population growth and distribution. The present "population explosion" will be a topic of central interest. Prerequisite: Principles of Sociology.

**SS 335 Social Stratification****3 cr.**

A study of social status patterns and social mobility. Determinants of social class divisions and the consequences of class distinctions for individuals and society will be discussed. Prerequisite: Principles of Sociology.

**SS 336 Primary Interaction****3 cr.**

The relationships between types of family interaction and extrafamilial problems are emphasized, as well as the impact of social change on the structure and functions of the family. Prerequisite: Principles of Sociology.

**SS 411 Cultural Anthropology****3 cr.**

A survey of problems and theories in the science of culture. Each student makes a study of a particular major anthropologist or theoretical approach. Prerequisites: SS 410, and either SS 412 or SS 413.

**SS 412 World Ethnography** (Comparative Cultures)**3 cr.**

A study of the adaptive diversification of cultures; cultural ecology is the fundamental theme, with emphasis on a particular major culture area of the world. Each student studies one culture intensively. Prerequisite: Introduction to Anthropology.

**SS 413 Pre History****3 cr.**

A survey of the evolution of man and culture in the Old and New World from the earliest fossil and cultural forms to the Archaic Civilizations. Prerequisite: Introduction to Anthropology.

**ECONOMICS ELECTIVES****SS 240 Principles of Economics****3 cr.**

A course in which a study is made of the major areas in the field of economics; production, exchange, distribution, and consumption. Special consideration is given wages, interest, rent, profits, price determination, money and banking, and national income.

**SS 341 Industrial Relations****3 cr.**

A study of the problems involved in the relations between the workers and management in a dynamic industrial society, and the economic aspects of the solutions of these problems proposed or attempted by labor, management, and the government. Prerequisite: Principles of Economics.

**SS 342 Contemporary Economic Problems 3 cr.**

A course which briefly analyzes the world-wide clash of Communism, Socialism, and Capitalism, and examines in some detail the contemporary internal problems of American Capitalism. Controversial problems implicit in the rise of big business, big labor, big agriculture, and big government are explored, and proposed solutions are examined. Students are encouraged to reach tentative individual conclusions on the basis of their independent study. Prerequisite: Principles of Economics.

**SS 343 Economic Analysis 3 cr.**

An analysis of prices, output and distribution with application to current problems of economic policy. Prerequisite: Principles of Economics.

**SS 344 Public Finance 3 cr.**

A survey of the revenues, expenditures and debt operations of governments. Special attention will be given to the different requirements and character of the Federal government and of state and local units respectively. Prerequisite: Principles of Economics.

**SS 345 Money and Banking 3 cr.**

A study of the history and present state of the American monetary and banking system. The Federal Reserve System, instruments of credit control, proposals for monetary reform and the relationship between money and economic stability will be covered in the course. Prerequisite: Principles of Economics.

**SS 346 Economic Development 3 cr.**

An empirical and theoretical analysis of the nature of the economic growth of nations. Special emphasis given to the problems of underdeveloped countries. Prerequisite: Principles of Economics.

**SS 347 History of Economic Thought 3 cr.**

Presenting a study of the fundamental contributions which outstanding economists have made to economic ideas. Prerequisite: Principles of Economics.

## HISTORY ELECTIVES

**SS 201 History of Civilization I 3 cr.**

A survey course presenting in integrated form the origin and development of man's major political, social, economic, religious, aesthetic and intellectual institutions from preliterate times to 1600

A. D. Including the Oriental and Near Eastern cultures as well as the more familiar Greek, Roman, and Germanic contributions to world society, the course deals with broad historical movements rather than with the details of individual peoples and nations.

**SS 301 History of the United States and Pennsylvania I** 3 cr.

A course covering the period in American history from the discovery of America to 1865 with emphasis on the history of Pennsylvania. Special attention is given to the colonial foundations of our nation, the emergence of our Federal Union, the rise of an American culture, territorial and economic growth of the United States, the rise of political democracy, social reform, and the controversy over sectionalism and slavery.

**SS 360 Special Studies in History** 3 cr.

Selected periods or problems for intensive study.

**SS 361 Contemporary United States History** 3 cr.

A course devoted to the analysis of the fundamental changes in American culture since 1900. In evaluating social, intellectual, economic, and political developments since the era of the "Full Dinner Pail," the United States is studied as a product and as a part of the world community of nations. Foreign policy is interpreted as the pursuit of American interests under the conditions imposed by contemporary international politics.

**\*SS 362 Social-Intellectual History of the United States** 3 cr.

A study of the social and intellectual factors which have helped to shape modern America. The ideas characterizing the various periods of American development will be studied in themselves and through their influence on the course of practical affairs.

**SS 363 Diplomatic History of the United States** 3 cr.

This course traces the history of our foreign relations from the American Revolution to the present. Emphasis is placed on those principles and major policies upon which our foreign policies are based.

**SS 364 Great Personalities In History** 3 cr.

The study of selected phases of history through the lives of outstanding personalities.

**SS 365 History of Pennsylvania** 3 cr.

A study of the founding and development of Pennsylvania from its colonial beginnings to the present time. Emphasis is placed on the

social, economic and political developments in the different periods of its history. Special attention is given to the diversity of the people, their institutions and problems and the growth of Pennsylvania to a leading position in our modern industrial world.

**SS 371 Renaissance and Reformation**

**3 cr.**

This is a course dealing with the study of the Renaissance, with reference to the artistic, literary, scientific and political aspects, and the vital personalities motivating them; the Reformation as it affected the religious, economic, and political development in Europe. Particular attention will be given to the educational ideas of Erasmus and other reformers in this period.

**SS 372 History of Europe: 1600-1815**

**3 cr.**

This course examines important political, economic and cultural developments from 1600 to 1815. Among the topics emphasized are the scientific and philosophical revolutions, the Enlightenment, government by divine right, the English and French Revolutions, and the Napoleonic Era.

**SS 373 History of Europe: 1815-1914**

**3 cr.**

A comprehensive study of the factors contributed by the European people in their national organization through their political, social and economic activities. The understanding of the casual and inter-group relationships are essentially basic to analysis and interpretations of the difficulties facing the European world today.

**SS 374 History of Twentieth Century World**

**3 cr.**

This course examines political, economic, social and intellectual trends in the world since 1900, with a major emphasis on European contributions. Consideration is given to the causes and results of twentieth century warfare and the search for international order and stability.

**SS 375 History of the Far East**

**3 cr.**

A survey of the development of the peoples of China, Japan, India and adjacent territories for the purpose of gaining an understanding of their contemporary problems and ways of thinking as they relate to current world affairs. Special emphasis is placed on the impact of the West as a conditioning factor in the development of the Far East in modern times.

**SS 376 History of the Middle East**

**3 cr.**

This course is a study of the Ottoman Middle East and its lack of political unity resulting from the rise and development of Arab,

Turkish, Zionist and other nationalist movements. Special attention is given to the effect of these movements upon the contemporary history of the Middle East and to the significance of that area in current world affairs.

**SS 377 History of Latin America** 3 cr.

The course surveys the development of the Latin American countries from the period of discovery to the present. The economic, social, political and cultural areas receive special attention first as domestic problems, then as they are related to the various political units involved. The influence of European and American relations as they are reflected in local changes are given consideration.

**SS 378 History of England** 3 cr.

This course traces the growth of the people and institutions of England from the conquest by the Anglo-Saxons to the present. The emphasis is placed on the development of those factors that give rise to the struggle and events that culminated in the establishment of the democratic principles and organizations in both the British Commonwealth and elsewhere in the modern world.

**SS 379 History of Russia** 3 cr.

A general survey of Russian history, culture and institutions. Special consideration is given to the study of those historical forces which were formative of the Revolution of 1917. Consideration is also given to post-Revolution Russia.

## POLITICAL SCIENCE ELECTIVES

**SS 350 Public Administration** 3 cr.

A study of the organization and methods of governmental administrative agencies. Attention is given to organization principles, recruiting and training of personnel, administrative procedures, problems of bureaucracy in a democracy, and case study of public administration.

**SS 351 The Legislative Process** 3 cr.

A functional study of legislative bodies and the process of legislation, covering the organization of legislative assemblies, operation of the committee system, procedures, bill drafting, aids, and controls over legislation.

**SS 353 American Political Parties** 3 cr.

This course will trace historically the development of American Political Parties. Major emphasis will be placed on modern party developments since 1900.

**SS 354 Metropolitan Problems****3 cr.**

Analyzes the multiplicity of problems facing our metropolitan areas. Contemporary developments such as urban renewal, the shrinking tax base, federal aid to cities, subsidized mass transit, municipal authorities, and political consolidation are examined. Pennsylvania municipalities are contrasted with those of other states.

**SS 355 Comparative Government****3 cr.**

A course in which the major foreign democratic and authoritarian governments are analyzed. Emphasis is placed on the governments of the Soviet Union, England, France, Italy, Germany, China and Japan. Comparisons and contrasts are drawn between these governments and the government of the United States.

**SS 356 State and Local Government****3 cr.**

A study of the organization, institutions, processes, and problems of state, county, municipal, township, and other units of local government in the United States as they relate to the total political, social, and economic environment. Special emphasis is placed on Pennsylvania state and local government and politics.

**SS 357 International Relations****3 cr.**

This course gives consideration to the origin and growth of international law and the development of international organization. An analysis is made of the structure and functions of the United Nations. Emphasis is placed on the role of the United Nations in contemporary world affairs.

**SS 358 Contemporary Political Problems****3 cr.**

This course emphasizes the dynamics of government as they are evidenced in public opinion, pressure groups, political parties and our governmental institutions. Attention is also directed toward the political-economic nexus within American society.

**SS 359 American Constitutional Law****3 cr.**

Through the decisions of the United States Supreme Court the development of constitutional law is studied. Attention is given to the legal terminology, the history, and the philosophy significant in an understanding of American jurisprudence. Emphasis is given to the influence of legal interpretations on the political, social, and economic life of the nation.

**SS 423 Political Philosophy****3 cr.**

An examination of major theories of political organization. Such major works as Plato's *Republic*, Aristotle's *Politics*, Hobbes' *Leviathan*, Rousseau's *Social Contract* and Locke's *Treatises on Government* are studied. (See also Philosophy Electives.)



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## PROFESSIONAL EDUCATION ELECTIVE

### Ed 451 Teaching Social Studies in the Secondary Schools 3 cr.

This course provides an opportunity for the prospective teacher to develop understandings and competencies for teaching social studies. Emphases in the course include: values and goals in social studies, the teaching process, materials and learning activities, evaluation of learning, and planning for classroom teaching. This course is a prerequisite to student teaching in the social studies.

## PHILOSOPHY ELECTIVES

### Phil 421 Logic 3 cr.

The meaning and definition of terms. The types of statement and their uses in valid deduction. Inductive arguments and the methods of empirical inquiry. This course aims at developing an increased awareness of the requirements of proof, and of the many common forms of fallacious arguments.

### Phil 422 Ethics 3 cr.

An introduction to significant ethical theory. Selected writings both ancient and modern are examined and discussed critically. The student is encouraged not only to develop a consistent ethical formulation of his own, but to make application of each view studied to current moral problems.

### Phil 423 Political Philosophy 3 cr.

An examination of major theories of political organization. Such substantial works as Plato's Republic, Aristotle's Politics, Hobbes' Leviathan, Rousseau's Social Contract, and Locke's Second Treatise of Civil Government are studied in depth. (See also in Pol. Sci. electives.)

### Phil 424 The History of Philosophy 3 cr.

Great men and movements in western philosophy from the pre-Socratic period to the present. The course follows a chronological order, examining the whole thought of selected major philosophers, as well as the world-views of their times. Prerequisite: Phil. 420.

### Phil 425 American Philosophic Thought 3 cr.

A study of the more original and influential philosophic postures developed in America from the colonial period to the present, and of the men who gave them their most complete expressions. Prerequisite: Phil 420.

## Phil 426 Aesthetics

3 cr.

Studies in the meaning and value of man's aesthetic experience. The nature and significance of art — its role in human experience. Theories of art from Plato to Dewey are examined and discussed critically.

## Phil 430 Readings Colloquium

3 cr.

Designed for the student making a primary concentration in philosophy, this course centers around discussion of an intensive reading program, and includes a research project of thesis quality. Prerequisites: Phil 420, 421, and 422.

## INDEX

## A

Absence and Tardiness .....	29
Activity Fee .....	38
Administrative Organization of College .....	4
Admission Policy .....	28
Advance Registration Deposit .....	37
Advance Standing .....	29
Advisory System .....	30
Art Department .....	95
Faculty .....	95
Curriculum .....	68
Course Sequence .....	68
Course Description .....	95-99

## B

Baggage .....	45
Board of Trustees .....	3
Buildings .....	1
Business Department .....	100
Faculty .....	100
Curriculum .....	69
Course Sequence .....	69
Course Description .....	100-105

## C

Calendar .....	2
Chairman of Departments .....	4
Chest X-Rays .....	47
Class Organization .....	55
Classification of Students .....	31
College Board Examinations .....	28
College Infirmary .....	47
College, Present and Past .....	21-23
Course Numbers .....	61
Criteria Governing Continuance in College .....	30-31
Cultural Life Series .....	50

## D

Damage Fee .....	36
Day Students .....	47
Degree Fee .....	36
Delinquent Accounts .....	36
Dental Hygienist Degree Curriculum .....	71
Departmental Groups .....	51-53
Departments .....	95-181
Art .....	95
Business .....	100
Education & Psychology .....	106
Elementary .....	117
Health & Physical Education .....	140
Home Economics .....	143

Military Science & Tactics .....	156
Music .....	160
English & Speech .....	121
Foreign Languages .....	130
Geography .....	134
Mathematics .....	132
Science .....	170
Social Science .....	181
Dining Room Policy (Women) .....	45
(Men) .....	45
Directors of Special Clinics .....	4

## E

Education & Psychology Department .....	106-116
Faculty .....	106
Curriculum .....	106
Special Education Courses .....	73
Speech and Hearing Handicapped .....	74
Education for Safe Living .....	72
Elementary Education .....	117-120
Faculty .....	117
Curriculum .....	75
Course Sequence .....	75
Course Description .....	117
Eligibility for Student Teaching .....	32
English-Speech Department .....	121-129
Faculty .....	121
Curriculum .....	77
Course Sequence .....	77
Course Description .....	121
Enrollment by Counties .....	60
Enrollment by Curricula .....	58
Entrance Examinations .....	28

## F

Faculty .....	5
Fees, Deposits, Repayment .....	35
Fire Precautions .....	46
Foreign Film Society .....	54
Foreign Languages Department .....	130
Faculty .....	130
Curriculum .....	78
Course Sequence .....	78
Course Descriptions .....	130-133
Founding of College .....	21
Fraternities .....	55

## G

General Education .....	61-62
Geography Department .....	134
Faculty .....	145
Curriculum .....	80

## INDEX

Course Sequence .....	80
Course Description .....	134-139
Girls Rifle Team .....	54
Grade Reports .....	30
Grades .....	30
Graduate Studies .....	34
Grounds and Buildings .....	23-26

## H

Handbook .....	46
Health & Physical Education Dept. ....	140
Faculty .....	140
Course Description .....	140-141
Certification in Field of Education for Safe Living .....	142
Home Economics Club .....	55
Home Economics Department .....	143
Faculty .....	143
Curriculum .....	81
Course Sequence .....	81
Course Description .....	143-151
Housing Fee .....	38
Housing Policy (Women) .....	45
(Men) .....	46
How Bills & Charges Are To Be Paid .....	38
How To Apply For Admission .....	28

## I

Indiana College Slide Society .....	55
Infirmary .....	25
Infirmary Fee .....	36
Inter-disciplinary Studies .....	65
Interfraternity Council .....	57
Intramural Sports (Men's) .....	54
(Women's) .....	54
Iroquois House .....	25

## J

Junior Standing .....	33
-----------------------	----

## K

Key for Course Numbers .....	61
------------------------------	----

## L

Late Registration Fee .....	36
Laundry .....	45
Library Hours .....	47
Location of College .....	1

## M

Mathematic Department .....	152
Faculty .....	152
Curriculum .....	83
Course Sequence .....	83
Course Description .....	152-155
Men's Student Leagues .....	51
Men's Varsity "I" .....	53
Military Clothing Deposit .....	37
Military Science & Tactics Dept. ....	156
Faculty .....	156
Requirements .....	156
What ROTC Offers .....	156
Special Fees .....	157
Curriculum .....	157-159
Music Department .....	160
Faculty .....	160
Requirements for Admission .....	160
Course Descriptions .....	160-169
Applied Music .....	168
General Music Curriculum .....	84
Course Sequence .....	84
General Music Curriculum .....	84
Instrumental Curriculum .....	85
Vocal Music Curriculum .....	86

## O

Office Hours .....	47
Other Charges .....	37
Out-of-State Students Fees .....	38

## P

Panhellenic Council .....	57
Placement Service .....	48
Pre-Professional Studies .....	65
Private Accounts .....	37
Private Instruction in Music .....	36
Public School Nursing Degree .....	87
Curriculum .....	87
Course Sequence .....	87
Purposes of the College .....	20

## Q

Quality Points .....	30
----------------------	----

## R

Red Cross Lifesaving & Swimming .....	54
Regulations of the College .....	44
Religious Organizations .....	51
Repayments .....	38
Reserve Officers Training Corps .....	48

## INDEX

## S

Saturday Campus Classes .....	49
Scholarships and Loans .....	39-43
School Food Service Management .....	82
School of Liberal Arts .....	63-64
Science Department .....	170
Faculty .....	170
Course Descriptions .....	170-180
Course Sequence .....	88-93
Curriculum .....	88-93
Service Organizations .....	57
Social Science Department .....	181
Faculty .....	181
Curriculum .....	94
Course Sequence .....	94
Course Description .....	181-190
Sororities .....	57
Special Clinics .....	47
Special Education Curriculum .....	73
Special Fees .....	36
Special Services .....	47
State Council of Education .....	3
Steps in Admission .....	27
Student Activity Fee .....	35
Student Cooperative Association .....	50
Student Council .....	49

Student Employment .....	48
Student Government .....	49
Student Supplies .....	46
Summer Sessions .....	48-49

## T

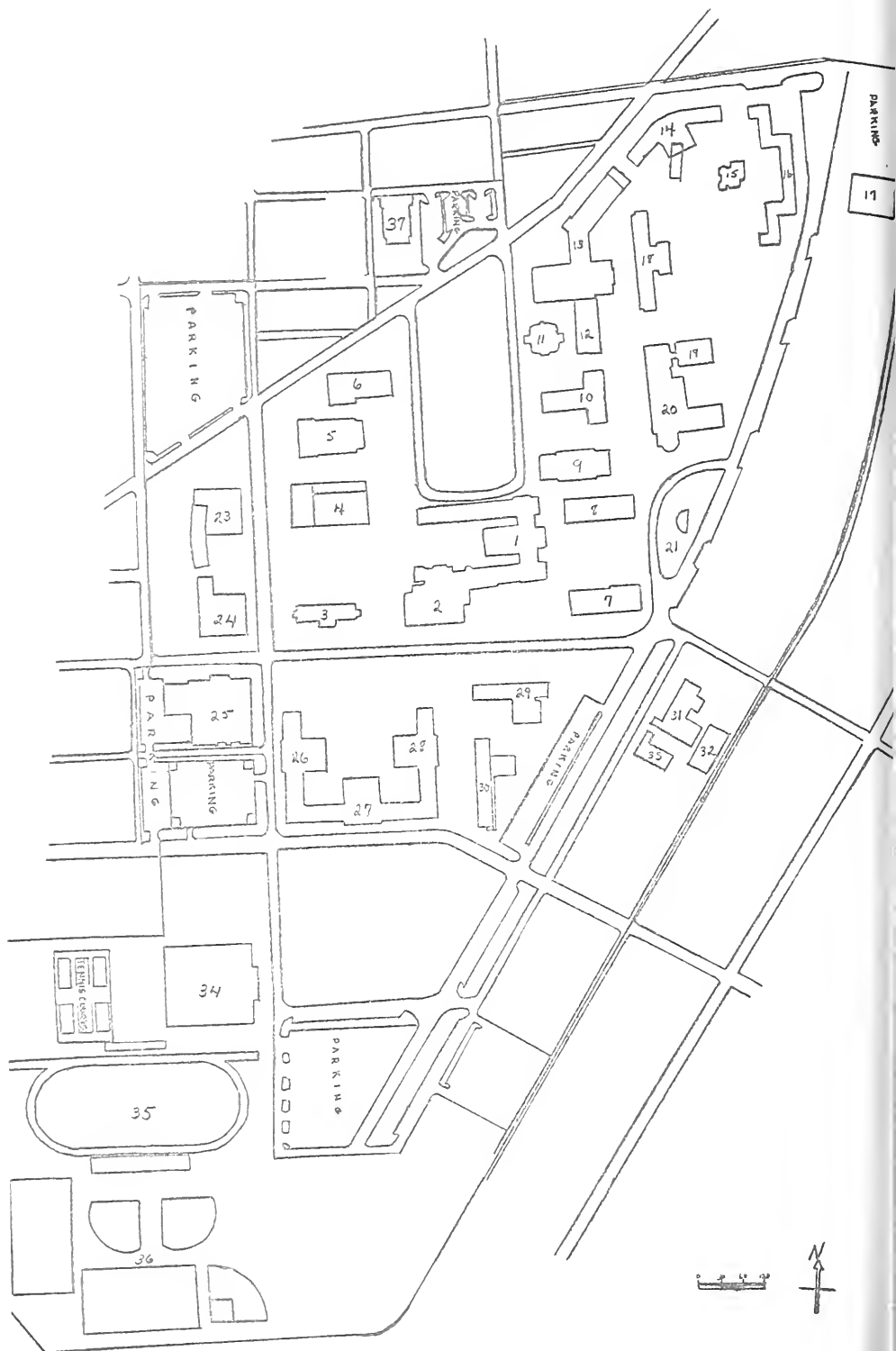
Teaching of the Speech & Hearing Handicapped .....	74
The School of Education .....	65-67
Time of Payments .....	38
Transcript Fee .....	36

## V

Vacation and Guest Charges .....	46
Varsity Athletics .....	54

## W

Winter Sport Club .....	55
Women's Athletic Association .....	55
Women's Athletic Association Board .....	54
Women's Collegiate Association .....	51



# Key to Buildings

- |                                   |  |
|-----------------------------------|--|
| 1. John Sutton Hall               | 20. Keith School                       |
| 2. Thomas Sutton Hall             | 21. Flagstone Theater                  |
| 3. Clark Hall                     | 22. Not listed                         |
| 4. Stabley Library                | 23. Cogswell Hall                      |
| 5. Fisher Auditorium              | 24. Classroom Hall<br>(proposed)       |
| 6. Waller Gymnasium               | 25. Dining Hall<br>(proposed)          |
| 7. Home Economics Hall            | 26. Mack Hall                          |
| 8. Classroom Hall<br>(proposed)   | 27. Stewart Hall                       |
| 9. McElhaney Hall                 | 28. Turnbull Hall                      |
| 10. Leonard Hall                  | 29. Wahr Hall                          |
| 11. Wilson Hall                   | 30. Langham Hall                       |
| 12. Walsh Hall                    | 31. Boiler Plant                       |
| 13. Science Complex<br>(proposed) | 32. Maintenance Building<br>(proposed) |
| 14. Women's Dormitory<br>(new)    | 33. Shop Building                      |
| 15. Elkin Hall                    | 34. Field House<br>(proposed)          |
| 16. Whitmyre Hall                 | 35. Miller Stadium                     |
| 17. Student Union                 | 36. Athletic Fields                    |
| 18. Men's Dormitory<br>(new)      | 37. Thaddeus Stevens Hall              |
| 19. Special Education Building    |  |

## STREETS

Running east and west showing on the map starting at the north (top) of the map are as follows: School, Washington, Oakland (Route 286-diagonal), Grant and Maple. On the extreme right, running at a diagonal (NE-SW), are Wayne Avenue (Route 119), Garman Avenue, College Avenue, and Pratt Drive. Running North and South from the Miller Stadium to Philadelphia Street is Eleventh Street.

# MAP OF INDIANA STATE COLLEGE







1. The first part of the paper is devoted to a general discussion of the problem of the existence of a solution of the system of equations (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has a solution for arbitrary values of the parameters  $\alpha$  and  $\beta$  if and only if the condition  $\alpha + \beta = 1$  is satisfied. In this case the solution is unique and is given by the formula

2. The second part of the paper is devoted to a study of the properties of the solution of the system of equations (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solution is a function of the parameters  $\alpha$  and  $\beta$  and is continuous with respect to these parameters. It is also shown that the solution is a function of the parameters  $\alpha$  and  $\beta$  and is continuous with respect to these parameters.

